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INTRODUCTORY NOTES

Notes on Transliteration

Vowel Sounds

a has the sound of *a* in 'woman.'
ā has the sound of *a* in 'father.'
e has the vowel sound in 'grey.'
i has the sound of *i* in 'pin.'
ī has the sound of *i* in 'police.'
o has the sound of *o* in 'bone.'
u has the sound of *u* in 'bull.'
ū has the sound of *u* in 'flute.'
ai has the vowel sound in 'mine.'
au has the vowel sound in 'house.'

It should be stated that no attempt has been made to distinguish between the long and short sounds of *e* and *o* in the Dravidian languages, which possess the vowel sounds in 'bet' and 'hot' in addition to those given above. Nor has it been thought necessary to mark vowels as long in cases where mistakes in pronunciation were not likely to be made.

Consonants

Most Indian languages have different forms for a number of consonants, such as *d*, *t*, *r*, &c., marked in scientific works by the use of dots or italics. As the European can distinguish these with difficulty in ordinary pronunciation, it has been considered undesirable to embarrass the reader with them; and only two notes are required. In the first place, the Arabic *k*, a strong guttural, has been represented by *k* instead of *q*, which is often used. Secondly, it should be remarked that aspirated consonants are common; and, in particular, *dh* and *th* (except in Burma) never have the sound of *th* in 'this' or 'thin,' but should be pronounced as in 'woodhouse' and 'boathook.'

Burmese Words

Burmese and some of the languages on the frontier of China have the following special sounds:—

aw has the vowel-sound in 'law.'
ö and ü are pronounced as in German.
gy is pronounced almost like *j* in 'jewel.'
ky is pronounced almost like *ch* in 'church.'
th is pronounced in some cases as in 'this,' in some cases as in 'thin.'
w after a consonant has the force of *uw*. Thus, *ywa* and *pwe* are disyllables, pronounced as if written *yuwa* and *puwe*.

It should also be noted that, whereas in Indian words the accent or stress is distributed almost equally on each syllable, in Burmese there is a tendency to throw special stress on the last syllable.

General

The names of some places—e.g. Calcutta, Bombay, Lucknow, Cawnpore—have obtained a popular fixity of spelling, while special forms have been officially prescribed for others. Names of persons are often spelt and pronounced differently in different parts of India; but the variations have been made as few as possible by assimilating forms almost alike, especially where a particular spelling has been generally adopted in English books.

NOTES ON MONEY, PRICES, WEIGHTS AND MEASURES

As the currency of India is based upon the rupee, all statements with regard to money throughout the *Gazetteer* have necessarily been expressed in rupees, nor has it been found possible to add generally a conversion into sterling. Down to about 1873 the gold value of the rupee (containing 165 grains of pure silver) was approximately equal to 2*s*., or one-tenth of a £, and for that period it is easy to convert rupees into sterling by striking off the final cipher (Rs. 1,000 = £100). But after 1873, owing to the depreciation of silver as compared with gold throughout the world, there came a serious and progressive fall in the exchange, until at one time the gold value of the rupee dropped as low as 1*s*. In order to provide a remedy for the heavy loss caused to the Government of India in respect of its gold payments to be made in England, and also to relieve foreign trade and finance from the inconvenience due to constant and unforeseen fluctuations in exchange, it was resolved in 1893 to close the mints to the free coinage of silver, and thus force up the value of the rupee by restricting the circulation. The intention was to raise

the exchange value of the rupee to 1*s.* 4*d.*, and then introduce a gold standard (though not necessarily a gold currency) at the rate of Rs. 15 = £1. This policy has been completely successful. From 1899 onwards the value of the rupee has been maintained, with insignificant fluctuations, at the proposed rate of 1*s.* 4*d.*; and consequently since that date three rupees have been equivalent to two rupees before 1873. For the intermediate period, between 1873 and 1899, it is manifestly impossible to adopt any fixed sterling value for a constantly changing rupee. But since 1899, if it is desired to convert rupees into sterling, not only must the final cipher be struck off (as before 1873), but also one-third must be subtracted from the result. Thus Rs. 1,000 = £100 − ⅓ = (about) £67.

Another matter in connexion with the expression of money statements in terms of rupees requires to be explained. The method of numerical notation in India differs from that which prevails throughout Europe. Large numbers are not punctuated in hundreds of thousands and millions, but in lakhs and crores. A lakh is one hundred thousand (written out as 1,00,000), and a crore is one hundred lakhs or ten millions (written out as 1,00,00,000). Consequently, according to the exchange value of the rupee, a lakh of rupees (Rs. 1,00,000) may be read as the equivalent of £10,000 before 1873, and as the equivalent of (about) £6,667 after 1899; while a crore of rupees (Rs. 1,00,00,000) may similarly be read as the equivalent of £1,000,000 before 1873, and as the equivalent of (about) £666,667 after 1899.

Finally, it should be mentioned that the rupee is divided into 16 annas, a fraction commonly used for many purposes by both natives and Europeans. The anna was formerly reckoned as 1½*d.*; it may now be considered as exactly corresponding to 1*d.* The anna is again subdivided into 12 pies.

The various systems of weights used in India combine uniformity of scale with immense variations in the weight of units. The scale used generally throughout Northern India, and less commonly in Madras and Bombay, may be thus expressed: one maund = 40 seers; one seer = 16 chittaks or 80 tolas. The actual weight of a seer varies greatly from District to District, and even from village to village; but in the standard system the tola is 180 grains Troy (the exact weight of the rupee), and the seer thus weighs 2·057 lb., and the maund 82·28 lb. This standard is used in official reports and throughout the *Gazetteer*.

For calculating retail prices, the universal custom in India is to express them in terms of seers to the rupee. Thus, when prices change, what varies is not the amount of money to be paid for the

same quantity, but the quantity to be obtained for the same amount of money. In other words, prices in India are quantity prices, not money prices. When the figure of quantity goes up, this of course means that the price has gone down, which is at first sight perplexing to an English reader. It may, however, be mentioned that quantity prices are not altogether unknown in England, especially at small shops, where pennyworths of many groceries can be bought. Eggs, likewise, are commonly sold at a varying number for the shilling. If it be desired to convert quantity prices from Indian into English denominations without having recourse to money prices (which would often be misleading), the following scale may be adopted—based upon the assumptions that a seer is exactly 2 lb., and that the value of the rupee remains constant at *1s. 4d.*: 1 seer per rupee = (about) 3 lb. for *2s.*; 2 seers per rupee = (about) 6 lb. for *2s.*; and so on.

The name of the unit for square measurement in India generally is the *bīgha*, which varies greatly in different parts of the country. But areas have always been expressed throughout the *Gazetteer* either in square miles or in acres.

MAPS

IMPERIAL GAZETTEER OF INDIA

VOLUME VIII

Berhampore Subdivision.—Head-quarters subdivision of Murshidābād District, Bengal, lying between 23° 48′ and 24° 22′ N. and 88° 11′ and 88° 44′ E., with an area of 752 square miles. A great portion of the subdivision is low-lying and liable to floods. The population in 1901 was 471,962, compared with 454,919 in 1891, the density being 628 persons per square mile. It contains one town, BERHAMPORE (population, 24,397), its head-quarters; and 1,060 villages.

Berhampore Town (*Bahrāmpur*).—Head-quarters of Murshidābād District, Bengal, situated in 24° 8′ N. and 88° 16′ E., on the left bank of the Bhāgīrathi, 5 miles below the town of Murshidābād. Population (1901), 24,397, of whom 19,779 are Hindus, 4,335 Muhammadans, and 255 Christians. Berhampore was selected as a site for a cantonment in 1757, shortly after the battle of Plassey, the factory house at Cossimbazar having been destroyed by Sirāj-ud-daula. The Court of Directors sanctioned the project to station troops here after the revolt of Mīr Kāsim in 1763, and the barracks were completed in 1767 at a cost of 30·23 lakhs. The cantonment will always be remembered as the scene of the first overt act of mutiny in 1857, when the garrison had dwindled down to one battalion of native infantry and another of irregular cavalry and two guns. The sepoys of the 19th regiment, who had been intensely excited by the story of the greased cartridges, rose, on the night of February 25, in open mutiny, but were prevented from doing any actual harm by the firm and at the same time conciliatory behaviour of their commanding officer. After the Mutiny European troops were again stationed here, but they were finally withdrawn in 1870. The barracks are still a prominent feature of the town, though they have now been appropriated to other uses.

Berhampore was constituted a municipality in 1876. The municipal income during the decade ending 1901–2 averaged Rs. 46,000, and the expenditure Rs. 44,000. In 1903–4 the income was Rs. 62,000, of which Rs. 16,000 was derived from a tax on persons (or property tax), Rs. 15,000 from a water rate, and Rs. 12,000 from a conservancy rate.

The expenditure was Rs. 71,000. In 1894 the late Mahārānī Sarnamayī, C.I., undertook to furnish the town with a supply of filtered water. The works, which were opened in 1899, are designed to give a daily supply of 200,000 gallons. The water is pumped up from the Bhāgīrathi into three settling tanks, each with a capacity of 229,000 gallons, whence it passes through filters into the clear-water reservoirs. There are in all 12½ miles of pipes through which the water is distributed to the town.

The Magistrates' courts and municipal offices are located in the barracks. The Sessions Judge's court is about a mile to the south-east. The old military hospital has been converted into a District jail, with accommodation for 340 prisoners; the chief industries are oil-pressing, *surki*-pounding, carpentry, *darī*-weaving, and cane and bamboo work. Other public buildings are the circuit house and *dāk* bungalow, college, hospital, and lunatic asylum. There are several churches in the town, and the cemetery contains some interesting memorial stones. The Berhampore College, founded by Government in 1853, is a first-grade college with law classes and a hostel for boarders. A collegiate school is attached to it. It possesses fine buildings and a library, and is managed by a board of trustees. The Berhampore Sanskrit *tol* is managed by the estate of the late Rānī Arna Kālī Devī of Cossimbazar at an annual cost of Rs. 3,000. The hospital has thirty-six beds. The lunatic asylum has been recently enlarged at a cost of 3 lakhs, so as to provide accommodation for 267 male and 152 female patients. Lunatics are received here from the Presidency, Burdwān, and Bhāgalpur Divisions; in 1903–4 the maximum number of inmates was 263.

Berhampur Subdivision.—Subdivision of Ganjām District, Madras, consisting of the *tāluk* of BERHAMPUR and the *zamīndāri tahsīls* of ICHCHĀPURAM and SOMPETA.

Berhampur Taluk.—Easternmost of the three Government *tāluks* in Ganjām District, Madras, lying between 18° 56′ and 19° 32′ N. and 84° 25′ and 85° 5′ E., with an area of 685 square miles. The population in 1901 was 344,368, compared with 323,474 in 1891. The demand for land revenue and cesses in 1903–4 was Rs. 5,90,000. Its 'wet' lands, irrigated by the RUSHIKULYA Project and some streams and tanks, are more extensive than in the other *tāluks*. It contains 549 villages, and the three towns of BERHAMPUR (population, 25,729), the head-quarters, ICHCHĀPURAM (9,975), and GANJĀM (4,397). Along the coast the scenery is uninteresting, but the low hills to the east of Berhampur render the inland part more picturesque.

Berhampur Town (*Barampuram*).—The largest place in Ganjām District, Madras, and the head-quarters of the subdivision and *tāluk* of the same name, situated in 19° 18′ N. and 84° 48′ E., on the trunk road from Madras to Calcutta, and on the East Coast Railway, 656 miles from Madras and 374 miles from Calcutta. Population (1901), 25,729,

of whom 23,857 are Hindus, 1,224 Musalmāns, and 641 Christians. Until quite recently it was a cantonment, but the troops have been removed. It is the head-quarters of the District Judge, the Executive Engineer, and the District Medical and Sanitary officer.

Berhampur was constituted a municipality in 1867. The municipal receipts and expenditure during the decade ending 1903 averaged Rs. 32,000, and in 1903-4 amounted to Rs. 30,000. The receipts consist chiefly of taxes from houses and land and tolls. The council has built a fine market laid out on the standard plan. The eastern half of the town, which is known as Bhapur, is clean and healthy; but the western half, called Pāta-Berhampur, the original village from which the present town has grown, is overcrowded. The water-supply of Berhampur from the canals of the RUSHIKULYA Project was estimated to cost Rs. 4,02,300 for a complete scheme and Rs. 2,97,700 for a partial scheme; but the undertaking has been abandoned owing to want of funds. A cheaper scheme is now under consideration.

The town has an aided second-grade college, endowed with a lakh of rupees by the Rājā of Kallikota, to which is attached a Victoria Memorial hostel for boarders. In 1903-4 it had an average daily attendance of 342 students, of whom 28 were reading in the F.A. classes. It is managed by a committee, over which the president of the District board presides. The District jail, constructed in 1863, contains accommodation for 260 prisoners, who are employed in weaving, coir manufacture, carpentry, and oil-pressing; in an average year about 4,600 yards of cloth of various kinds, 1,700 lb. of gingelly oil, and 100 coir mats are manufactured. The Jubilee Hospital at Berhampur, erected from public subscriptions in commemoration of the Golden Jubilee of Her Majesty the late Queen-Empress, was opened in 1893. The chief industry in the town is the weaving of fine silk and *tasar* silk cloths of different colours. Sugar is also manufactured in considerable quantities.

Berī.--A petty *sanad* State in Central India, under the Bundelkhand Agency, with an area of about 32 square miles. Population (1901), 4,279. The holders are Bundelā Ponwārs, claiming descent from the great Agnikula clan of Paramāras. The ancestor of the Berī *jāgīrdārs* was Dīwān Mahma Rai of Karaiha in Gwalior State, whose son, Dīwān Achharāj Singh, migrated to Sandi (Jālaun District) at the end of the eighteenth century. The latter married a daughter of Rājā Jagat Rāj of Jaitpur, and received a *jāgīr* worth 12 lakhs, including the villages of Umrī, Dādrī, and Chili. When Alī Bahādur established his suzerainty over Bundelkhand in the beginning of the nineteenth century, Jugal Prasād, a grandson of Achharāj, who was in possession of the estate, received a *sanad* from Alí Bahādur, confirming him in possession of Umrī, Dādrī, and Chili. On the establishment of British supremacy, Jugal Prasād was, in 1809, confirmed in possession of the village of

Umrī only. In 1811, however, his claim to the other two villages was admitted; but as it was inexpedient that he should hold these villages, other land of equal value was made over to him, including the village of Berī. The present holder is Lokendra Singh, who succeeded his father Raghurāj Singh in 1904. He is a minor, and is being educated at the Daly College at Indore, the *jāgīr* being under superintendence. The *jāgīrdār* has the hereditary title of Rao. The State contains 7 villages, in which 7 square miles, or 22 per cent., are cultivated, and the revenue is Rs. 21,000. Berī, the chief town, is situated in 25° 55′ N. and 79° 54′ E., on the north bank of the Betwā river, 18 miles west of Hamīrpur, and 20 miles south-east of Kālpī. Population (1901), 2,387.

Beri.—Town in the District and *tahsīl* of Rohtak, Punjab, situated in 28° 42′ N. and 76° 35′ E., 15 miles south of Rohtak town on the direct road from Delhi to Bhiwāni. Population (1901), 9,723. It formed part of the estate of George Thomas, who took it by storm from a garrison of Jāts and Rājputs. It is now the great trade centre of the neighbourhood, and the residence of many wealthy merchants and bankers. Two large fairs are held annually, in February and October. The municipality was created in 1867. The income and expenditure during the ten years ending 1902–3 averaged Rs. 9,800 and Rs. 10,200 respectively. The income in 1903–4 was Rs. 6,200, chiefly raised from octroi; and the expenditure was Rs. 7,300. It maintains a vernacular middle school.

Betawad.—Town in the Sindkheda *tāluka* of West Khāndesh District, Bombay, situated in 21° 13′ N. and 74° 58′ E., on the Tāpti Valley Railway. Population (1901). 4,014. The town was constituted a municipality in 1864. The municipal income during the decade ending 1901 averaged Rs. 2,900. In 1903–4 the income was Rs. 2,300. The town, which was formerly the head-quarters of a *tāluka*, contains a boys' school attended by 169 pupils.

Betmangala.—Old town in the Bowringpet *tāluk* of Kolār District, Mysore, situated in 13° 0′ N. and 78° 20′ E., on the south bank of the Pālār, 6 miles east of the Kolār Gold Fields. Population (1901), 1,186. The name is a contraction of Vijayāditya-mangala, derived from the Bāna king, who was probably its founder. Two old inscribed stones, with dates 904 and 944, are worshipped under the name of Gangamma. The large tank gave way and was repaired about 950 under the Pallava Nolamba kings. It burst again and was restored after a long time in 1155 under the Hoysala kings. The embankment failed in 1903; but the tank has now been taken up for the water-supply of the Kolār Gold Fields, to furnish the mines with a million gallons a day, capable of increase by half a million if necessary. The town lost its importance on the opening of the railway in 1864, which diverted the former large passenger traffic; and it declined still further

on the removal of the *tāluk* head-quarters to the newly formed town of Bowringpet.

Bettadpur Hill.—Isolated conical hill, 4,389 feet high, in the Hunsūr *tāluk* of Mysore District, Mysore, situated in 12° 27′ N. and 76° 7′ E. On the summit is a temple of Annadāni Mallikārjuna, the family god of the Changālva kings. At the foot of the hill is Bettadpur village, a settlement of the Sanketi Brāhmans.

Bettiah Subdivision.—Northern subdivision of Champāran District, Bengal, lying between 26° 36′ and 27° 31′ N. and 83° 50′ and 84° 46′ E., with an area of 2,013 square miles. The southern portion of the subdivision is a level alluvial plain, but towards the north-west the surface becomes more undulating. Here a range of low hills extends for about 20 miles; and between this and the Someswar range, which stretches along the whole of the northern frontier, lies the Dūn valley. The population in 1901 was 749,864, compared with 759,865 in 1891. The slight decrease was due to unhealthiness and a series of lean years culminating in the famine of 1897. The density is only 373 persons per square mile, as compared with 507 for the whole District. The head quarters are at Bettiah (population, 24,696), and there are 1,319 villages. Roman Catholic missions are at work at Bettiah and Chuhāri. The latter owes its origin to some Italian missionaries who founded a mission at Lhāsa in 1707. Compelled to leave Tibet in 1713, they settled in Nepāl under the Newār kings; but when the Gurkhas came into power, they had to fly and take refuge at Chuhāri, where some land was granted to them. Many of the present flock are descendants of the original fugitives from Nepāl. Interesting archaeological remains are found at Lauriyā Nandangarh and Pipariyā. The greater part of the subdivision is included in the Bettiah Rāj, much of which is held by European indigo-planters on permanent leases. Rāmnagar, a village 13 miles north-west of Bettiah, is the residence of the Rājā of Rāmnagar, whose title was conferred by Aurangzeb in 1676 and confirmed by the British Government in 1860. He owns extensive forests, which are leased to a European capitalist. The Tribeni Canal, which is under construction, will do much to protect this subdivision from famine, to which it has always been acutely liable.

Bettiah Rāj.—A great estate in the subdivision of the same name in Champāran District, Bengal, with an area of 1,824 square miles. The property was originally acquired in the middle of the seventeenth century by a successful military adventurer, Rājā Ugra Sen Singh, a Bābhan or Bhuinhār. In 1765 Rājā Jugal Kishor Singh, who was then in possession, fell into arrears of revenue and rebelled against the British Government. He was defeated, and the estate was taken under direct management; but all attempts to collect the revenue failed, and in 1771 he was invited to return, and received the settlement of the

Majhāwa and Simraon *parganas*, the remainder of the District being given to his cousin and forming the Shiuhār Rāj. In 1791 the decennial settlement of the Majhāwa and Simraon *parganas* was made with Bīr Kishor, Jugal Kishor's son, and they now constitute the Bettiah Rāj. The title of Mahārājā Bahādur was conferred on the next heir, Anand Kishor, in 1830. The estate has been under the management of the Court of Wards since 1897. The land revenue and cesses due from the estate amount to 5 lakhs, and the collections of rents and cesses to nearly 18 lakhs. A great portion of the estate is held on permanent leases by European indigo-planters.

Bettiah Town.—Head-quarters of the subdivision of the same name in Champāran District, Bengal, situated in 26° 48′ N. and 84° 30′ E., on an old bed of the Harhā river. Population (1901), 24,696, of whom 15,795 were Hindus, 7,599 Musalmāns, and 1,302 Christians. Bettiah was constituted a municipality in 1869. The income and expenditure during the decade ending 1901–2 averaged Rs. 16,000. In 1903–4 the income was Rs. 23,000, mainly derived from a tax on persons (or property tax); and the expenditure was Rs. 16,000. A Roman Catholic mission was established about 1740 by Father Joseph Mary, an Italian missionary of the Capuchin order, who was passing near Bettiah on his way to Nepāl, when he was summoned by Rājā Dhruva Shāh to attend his daughter, who was dangerously ill. He succeeded in curing her, and the grateful Rājā invited him to stay at Bettiah and gave him a house and 90 acres of land. Bettiah is the head-quarters of the BETTIAH RĀJ, and the Mahārājā's palace is the most noteworthy building. The town contains the usual public offices; a subsidiary jail has accommodation for 26 prisoners.

Bettūr.—Village in the Dāvangere *tāluk* of Chitaldroog District, Mysore, situated in 14° 30′ N. and 76° 7′ E., 2 miles north of Dāvangere town. Population (1901), 1,210. It appears to have been the old capital of a principality, the original form of the name being Beltūr. At the end of the thirteenth century it was taken by the Seuna general, and made the seat of government during the ascendancy of the Seunas over the north of the Hoysala dominions.

Betūl District.—District in the Nerbudda Division of the Central Provinces, lying between 21° 22′ and 22° 23′ N. and 77° 11′ and 78° 34′ E., with an area of 3,826 square miles. It is bounded on the north and west by Hoshangābād; on the east by Chhindwāra; and on the south by the Amraotī District of Berār. Betūl occupies nearly

Physical aspects.

the entire width of the range between the valley of the Narbadā on the north and the Berār plains on the south; and with the exception of 15 or 20 villages which lie below the *ghāts* (passes) on the southern border, the whole District is situated on the plateau. The mean elevation is about

2,000 feet; but a number of peaks and ranges rise above 3,000 feet, and in the south-west corner the Khāmla plateau reaches a height of 3,789 feet. The District may be described generally as a central plateau surrounded by a belt of hilly and forest-covered country, wide on the north and west, but narrower on the east and south. The northern portion, down to the valleys of the Bel and Māchna rivers, and the town of Badnūr, is principally occupied by the main chain of the Sātpurās and its outlying spurs. About half of this tract consists of forest-clad ranges, between which lies an undulating country, intersected by innumerable watercourses and covered principally with a thin sandy soil of little value for cultivation. In the north-east the Tawā river flows along the border of the District, and is joined east of Shāhpur by the Māchna, which rises close to Badnūr. The Morand rises near Chicholī, and flows to the north-west to join the Ganjāl river in Hoshangābād. South of the sandy tract lies the rich valley of Betūl, watered by the Māchna and Sāmpna rivers, almost entirely under cultivation and well wooded, while farther to the east the smaller valleys of the Ambhorā and Tāpti present a similar appearance. To the south-east lies an extensive rolling area of basaltic formation, having the sacred town of Multai and the springs of the river Tāpti at its highest point, and consisting of alternate ridges of bare stony hills and narrow fertile valleys. Along the southern, eastern, and western borders is a strip of hilly country, generally narrow, but increasing towards the west to a breadth of about 15 miles from south to north. The southern hills form the *ghāts* of the Sātpurās leading down to the Berār plains. In the west of the District the northern and southern ranges meet in the wild tract of hill and forest forming the *parganas* of Sauligarh in Betūl and Kālībhīt in Nimār. The Tāpti, rising at Multai, flows due west through the southern part of the District in a deep and rocky bed, flanked on either side by hills of considerable height, which are in places so steep that they may more properly be described as cliffs. The Wardhā and Bel rivers also rise on the Multai plateau.

The northern portion of the District is occupied by metamorphic and Gondwāna rocks, the latter consisting chiefly of sandstones and shales, while the west and south are covered by the Deccan trap. In the hills south of Betūl occur sedimentary inter-trappean deposits abounding in fossils.

The extensive forests contain much teak, associated with which are all the common trees of this part of the Central Provinces. *Tinsā* (*Ougeinia dalbergioides*) is a common and valuable timber tree. *Mahuā* (*Bassia latifolia*) abounds both in the forests and in the open country. Among grasses may be mentioned *rūsa* or *tikāri* (*Andropogon Schoenanthus*), from which a valuable oil is obtained.

The forests contain tigers, leopards, *sāmbar*, spotted deer, 'ravine deer' (gazelle), and barking-deer. Antelope wander over the open country. There are bison in the Sauligarh and Asīr ranges, but their numbers are decreasing. Water-birds are rare, owing to the absence of tanks.

The climate is cool and healthy. During the cold season the thermometer frequently falls to several degrees below freezing-point; the hot wind is hardly felt before the end of April, and it ceases after sunset. The nights in the hot season are invariably cool and pleasant. Malarial fever is prevalent during the autumn months, especially in the forest tracts.

The annual rainfall averages 46 inches. At Multai it is a few inches less than at Badnūr, the position of the latter town in a small basin surrounded by low hills probably giving it a somewhat increased rainfall, while the absence of forest on the Multai plateau exercises a contrary influence. The statistics of past years show that the rainfall is on the whole more likely to be excessive than deficient.

History.

About 4 miles from Badnūr, and dominating the fertile valleys of the Māchna and Sāmpna, stands the fort of Kherlā, the head-quarters of one of the Gond dynasties which formerly held possession of the Province. A religious work called the *Vivek Sindhu*, written by one Mukund Rao Swāmi, who lived about A.D. 1300, contains some incidental references to the Kherlā rulers. The tomb of Mukund Rao is still to be seen within the precincts of the fort; but the ruins of the stronghold itself appear to be of Muhammadan origin, and probably date from a later period. According to tradition, the Gonds were preceded by Rājput rulers, the last of whom was killed at Kherlā after a twelve years' siege by the army of the king of Delhi. The Muhammadan general was also killed in the last assault, and his tomb at Umrī immediately below the fort is still an object of pilgrimage. Firishta relates that at the end of the fourteenth century the rulers of Kherlā were Gonds, possessed of considerable wealth and power, and so strong in arms as to venture to try conclusions with the Muhammadan rulers of Berār and Mālwā. In 1433 Hoshang Shāh, king of Mālwā, conquered Kherlā, which remained part of Mālwā till this was incorporated in the dominions of the emperor of Delhi towards the end of the sixteenth century. After Kherlā fell under the sway of the Mughals, it was governed by the Gond Rājās of Deogarh in Chhindwāra District, who had been converted to Islām and were subject to Delhi. In the middle of the eighteenth century it passed, with the rest of the kingdom of Deogarh, to the Bhonslas of Nāgpur. In 1818 the District formed part of the territory provisionally ceded to the British, and in 1826 it was formally included in the British dominions by treaty. From the conclusion of the Marāthā Wars to the present day there has been little to disturb the peace of Betūl. During the Mutiny the tranquillity of

the District was scarcely broken, though on his flight through Central India Tāntiā Topī passed through Multai and plundered the treasury. A military force was quartered at Betūl until 1862.

Bhainsdehi has an old temple with fine stone carving, part of which is in good repair. At Muktāgiri, near the southern boundary of the District on the Ellichpur road, a collection of modern Jain temples form a picturesque group at the head of a ravine and waterfall. A Jain fair is held here annually.

Population.

The population at the last three enumerations was: (1881) 304,905, (1891) 323,196, and (1901) 285,363. During the first decade the increase was 6 per cent., or only half that of the Province as a whole, and was mainly confined to the Multai *tahsīl*. In the last decade the decrease was 12 per cent., principally caused by famine, but also partly by emigration to Berār. The loss was most marked in the forest tracts of the District, the open country not suffering seriously. The District has two towns, BADNŪR, the head-quarters, and BETŪL; and 1,194 inhabited villages. The chief statistics of population in 1901 are shown below:—

Tahsīl	Area in square miles	Number of Towns	Number of Villages	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901	Number of persons able to read and write.
Betūl . .	2,770	2	777	170,994	62	− 12.2	3,489
Multai . .	1,056	..	417	114,369	108	− 11.0	2,035
District total	3,826	2	1,194	285,363	75	− 11.7	5,524

About 69 per cent. of the population are Hindus, 29 per cent. Animists, and 1½ per cent. Muhammadans. The population includes a large proportion of Gonds and Korkūs, and also immigrants from Mālwā through Hoshangābād on the north and from Berār on the south. The diversity of the different constituents is clearly shown by the statistics of language, for 33 per cent. of the population speak the Mālwi dialect of Rājasthānī, 23 per cent. Marāthī, 29 per cent. Gondi, and 8 per cent. Korkū. The northern elements of the population probably entered the District with Hoshang Shāh, king of Mālwā, in the fifteenth century, while the Marāthās came with the rise of the Bhonslas in the eighteenth. The latter are found principally in the Multai *tahsīl*, which borders on Berār.

Brāhmans (4,000) belong principally to Mālwā and are called Mālwī Brāhmans, but they now follow Marāthā fashions. They are cultivators, village priests, and *patwāris* or village accountants. The principal cultivating castes are the Kunbīs (31,000), Kurmīs (14,000), and Bhoyars (18,000). The two last castes are better cultivators than the

Kunbīs, and irrigation wells for sugar-cane are usually constructed by Bhoyars. Kurmīs hold the rich villages round Betūl. Ahīrs or Gaolīs number 15,000. Many of them live in the open country and are cultivators; but there is a sub-caste of Rahiyā Gaolīs (from *ran*, 'jungle'), who live in the forests of the north of the District and on the Khāmla plateau, and breed cattle. Gonds (83,000) form nearly 29 per cent. of the population, and Korkūs (24,000) 8½ per cent. The latter suffered very severely in the famines. The Korkūs are nearly all nominal Hindus and worship Mahādeo. Gonds, Korkūs, and Mehrās (28,000) are generally farm-servants and labourers. Their hardest time is from the middle of April till the middle of August, when they get very little work, and their principal resource is the *mahuā* flower. Many labourers from the south of the District emigrate to Berār to reap the *jowār* and cotton crops, returning for the wheat harvest in the spring. From the north of the District labourers similarly go to the Narbadā valley to cut the wheat. About 70 per cent. of the population were returned as dependent on agriculture in 1901.

Christians number 417, of whom 111 belong to the Anglican communion and 288 are Lutherans, 384 of the total number being natives. There are stations of the Evangelical Lutheran Mission of Sweden at Badnūr, Chicholi, Nīmpāni, and Bordehī; and the London Korkū Mission has recently established a station at Bhainsdehi.

Agriculture.

Black soil of first-rate quality is rarely found; and the best soil that occurs in any quantity is a friable loam, black or brown in colour, and varying from 2 to 10 feet in depth. In the trap country it often contains black stones and more rarely flints, and in the northern villages is mixed with sand. An inferior class consists of either very shallow black soil, or red soil which has been made more fertile by lying in a depression, while the poorest variety in the trap country is a red gravel generally strewn with brown stones. This last extends over as much as 39 per cent. of the total area. The result of famine has been to throw a considerable quantity of land out of cultivation, but all the best land is occupied.

About 32 square miles are held wholly or partially free of revenue, and 135 square miles of Government forest are in process of settlement on the *ryotwāri* system. The remaining area is held on the ordinary *mālguzāri* tenure. The following table gives the principal statistics of cultivation in 1903-4, with areas in square miles:

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Betūl . . .	2,770	786	7	795	825
Multai . . .	1,056	557	10	228	364
Total	3,826	1,343	17	1,023	1,189

The small millets *kodon* and *kutki* cover 199 square miles, wheat 233 square miles, *jowār* 134 square miles, the oilseeds *til* and *jagni* (*Guizotia oleifera*) 139 square miles, and gram 61 square miles. As in other Districts, wheat has in recent years been replaced by less valuable crops. Gram is severely affected by the cold frosty mists which are of frequent occurrence about the time when the plant is in flower, and hence it is much less grown as a mixture with wheat than in the Narbadā valley. *Kodon* and *kutki* are the staple food of the Gonds. The area under sugar-cane decreased from 9,000 acres in 1864 and 7,000 in 1894 to 3,000 in 1903-4. Cotton was grown on 29 square miles in 1903-4. Most of the labouring classes have small gardens, in which they sow beans, maize, tobacco, or chillies

Fields are scarcely ever embanked, probably owing to the fact that so many of them are in a sloping position. The most frequent improvements are directed to prevent erosion by surface drainage and the currents of streams. In a few cases this is effected by embanking and straightening the course of the stream; but more frequently the surface drainage of the slopes on each side is divided by the construction of protective trenches bordering the fields, and embanked on the inner edge towards the field. Terraces are sometimes made by placing lines of large stones across sloping fields at intervals, with the result that in a few years, owing to the action of drainage, each line of stones becomes the edge of a terrace. During the ten years ending 1904, about Rs. 26,000 was advanced under the Land Improvement Loans Act and 2·1 lakhs under the Agriculturists' Loans Act.

Cattle are bred in the jungles in the north of the District and also on the Khāmla plateau in the south, as well as to a certain extent in the open country. Those of the local breed are small, but hardy, and have strong feet. They are generally red and white, or red and black in colour. As a rule no care is exercised in breeding, and immature bulls are left in the herds before castration. On the Khāmla plateau, however, the Gaolīs sometimes select bulls for breeding, and obtain calves of fair size, but these cattle are principally sold in Berār. Large bullocks are imported from Bhopāl and Hoshangābād, and some from Deogarh in Chhindwāra. The Hoshangābād cattle are principally used in carts and to some extent for cultivation in soft soil, but their feet are too tender for the stony soils. Buffaloes are bred in the District. The bulls are used for drawing water and carting, but not for cultivation, and are sold in the rice tracts of Seonī and Bālāghāt. The cows are kept for the production of *ghī* and are much more valuable than the bulls. Small ponies are bred to a slight extent, and are used for pack-carriage and in some cases for riding by landowners.

Only about 4,000 acres of spring crop land are usually irrigated, and

then only because a well is available which was primarily made for sugar-cane or opium. Wells can be constructed very cheaply in some parts of the Multai plateau, where the subsoil water is near the surface, and the gravel or rock underlying the first few feet of soil is so hard that a durable shaft can be driven through it without being supported by brick or stone work. Even when water is available, wheat is usually not irrigated, owing to the apprehension that it may suffer from rust or frost. There are about 5,000 wells in the District.

The Government forests occupy an area of 1,189 square miles, of which 1,181 are 'reserved' forest. In addition to this, 135 square miles have been set apart for disforestation and settlement on the *ryotwāri* system. The forests are situated generally on the northern, western, and southern borders. Teak and bamboos are found on the trap hills, but not on the sandstone formation. *Tinsā* (*Ougeinia dalbergioides*) is a common and valuable timber tree. *Sāj* (*Terminalia tomentosa*) is found on flat ground where the soil is good, and satin-wood is abundant on the sandy soils. The forests supply a quantity of timber to Berār, in addition to the local consumption. The revenue obtained in 1903 4 was Rs. 71,000, of which Rs. 17,000 was realized from sales of timber, Rs. 16,000 from bamboos, and Rs. 20,000 from grazing dues and grass.

No mines are worked on a large scale in Betūl. Seams of coal have been found in different localities, the largest being at Mardānpur on the Māchna river, which is three feet thick in parts, and at Rāwandeo on the Tawā river, where there are several outcrops and one or two seams have a thickness of four feet. Smaller seams occur about two miles east of Shāhpur on the Māchna, and in the Sukī nullah. Limestone quarries are worked in several places. The lime is burnt on the spot in hand furnaces and sold for local consumption. There is a stone quarry at Sālbardī, from which stone suitable for mortars and cups is obtained. Copper ores have been found in the vicinity of the Tāpti, and mica in the Rānīpur forests and near Sonāghāti.

Trade and communications.

The local industries are of little importance. Several villages have colonies of Mahārs or low-caste weavers, who produce coarse cotton cloth; the thread is now all imported from the Nāgpur mills. Brass-working is carried on at Anılā, Rāmli, and Jāwalkhedā to a small extent, but brass vessels are principally imported from Hoshangābād and Chhindwāra. Gold and silver ornaments are made at Chicholī, Betūl, Atner, and Satnér, and the pottery of Betūl has some reputation. Banjārās make sacking of *san*-hemp (*Crotalaria juncea*).

Wheat and oilseeds are the principal grains exported, and also gram, *tiurā* (*Lathyrus sativus*), and *urad* (*Phaseolus radiatus*) in small quantities. *Jowār* has hitherto been imported from Berār for local con-

sumption. Cotton is now cultivated for export. *Gur* or unrefined sugar is exported principally to Berār, and to a small extent to the Narbadā valley, where, however, it cannot compete in price with that of Northern India. The principal exports of forest produce are timber, *mahuā*, myrabolams, *chironjī*, the fruit of the *achār*-tree (*Buchanania latifolia*), and *gullī*, or the oil of *mahuā* seeds. Others of less importance are *tikāri* oil (*Andropogon Schoenanthus*), gum, and lac. Teak and *tinsā* are the only timbers exported to any considerable extent. The imports consist principally of thread and cotton piece-goods, kerosene oil, hardware, gold and silver, salt, groceries and spices. Betel-leaves are imported from Berār and Rāmtek, and turmeric from Berār. The wholesale trade is in the hands of Mārwāri Baniās, while the retail purchase and collection of grain is largely made by Telis and Kalārs, who carry it on bullocks; timber and forest produce are taken in small quantities to Berār and Hoshangābād by Gonds. There are numerous weekly markets, but only retail transactions take place at these. A religious fair is held annually at Melājpur near Chicholī, at which a considerable amount of business is done in the sale of household and other utensils.

Betūl has hitherto been untouched by the railway, but a project for a line from Itārsi through the District to connect with the Great Indian Peninsula Railway in Berār is under consideration. Most of the trade has hitherto joined the railway at Itārsi on the north, the metalled road from Badnūr to Itārsi being the principal route. The roads from Chicholi to Nimpāni and from Rānipur to Shāhpur are feeders to the main road. On the south, the railway through Berār runs within 45 miles of the open parts of the Multai plateau, but the Multai-Pattan and Badnur-Ellichpur roads have only recently been made passable for carts down the slopes of the Sātpurās. Two other routes leading from Atner and Masod to Berār are used by pack-animals. Most of the traffic with the south passes through Chāndūr in Berār, which is an important market town, to Amraoti. There are altogether 81 miles of metalled and 203 miles of unmetalled roads in the District, and the annual expenditure on maintenance is Rs. 38,000. The Public Works department keeps up 239 miles of road and the District council 44. There are avenues of trees on 32 miles.

Famine.

Except in the last decade, it does not appear that Betūl has suffered greatly from famine. There were bad harvests in the years 1823-5 and again in 1828-30. In 1832-3 excessive, followed by deficient, rain caused a failure of crops, and heavy mortality occurred. In 1868 the premature cessation of the rains produced a short crop and a certain amount of distress; but it was not severe, and (as in later years) the flowers of the *mahuā*-tree afforded a means of sustenance to the poorer classes. After this there

was no distress until 1896, when following three successive poor harvests only a third of a normal crop was obtained. Severe famine prevailed in 1897, the numbers relieved in October reaching 26,000, or 8 per cent. of the population, and the total expenditure being 4·5 lakhs. The extent of the distress was not fully appreciated at first, owing to the reluctance of the forest tribes to apply for relief. In 1898-9 a little relief was again given in the hot season. In 1899-1900 the crops failed altogether from want of rain, the out-turn being only 20 per cent. of normal. Relief was extremely liberal and efficient, the numbers rising to 143,000 persons, or 45 per cent. of the population, in August, 1900; and the total expenditure was 34 lakhs.

The Deputy-Commissioner is aided by one Extra Assistant Commissioner. For administrative purposes the District is divided into two

Administration.

tahsīls, each of which has a *tahsīldār* and a *naib-tahsīldār*. The Forest officer usually belongs to the Provincial service, and public works are under the Executive Engineer of the Hoshangābād division, whose head-quarters are at Hoshangābād town.

The civil judicial staff consists of a Subordinate Judge who also has the powers of a District Judge, and a Munsif for the Betūl *tahsīl*. Of the civil litigation, suits on mortgage-deeds with conditional sale and for partition of immovable property are the most common classes of important cases. The crime of the District is petty, and presents no special features.

Under the Marāthā revenue system villages were farmed out to the highest bidder, and any rights or consideration which the village headmen may have enjoyed in the past were almost entirely effaced. Custom enjoined that so long as the annual rent demanded was paid, the tenure of the older cultivators should be hereditary and continuous. During the more favourable period of Marāthā rule the revenue of the District was 1·66 lakhs. When the peace of Deogaon and the disruption of the Nāgpur territories induced a policy of rack-renting, it was raised to 2·47 lakhs; and on the British occupation of the District the earliest short-term settlements imposed a still further enhancement, the demand rising at one time to 2·87 lakhs. This was never collected and had to be continually reduced, owing to the impoverishment of the District from over-assessment, until in 1834 a twenty years' settlement was made with a demand which had fallen to 1·40 lakhs. Under this settlement the District prospered greatly. On its expiry revision was delayed by the Mutiny, and was finally completed in 1864, the settlement being made for thirty years, and the demand raised to 1·84 lakhs. At this settlement the village headmen, who had previously been in the position of contractors or farmers, receiving a drawback on the collections of revenue, obtained proprietary and transferable rights in their

stages. The District continued to thrive during the period of the settlement, the extension of cultivation amounting to 38 per cent., while prices rose by 70 to 100 per cent. A new settlement was begun in 1894 on completion of the cadastral survey, but, owing to the suspension of work during the famine of 1897, was not finished until 1899. The result was an enhancement of the revenue to 2·77 lakhs, or by 15 per cent. on the demand immediately before revision. The new revenue absorbs 54 per cent. of the 'assets.' The average incidence of revenue per acre is R. 0-5-2 (maximum R. 0-13-8, minimum R. 0-2-1), and the rental incidence R. 0-7-1 (maximum Rs. 1-5-2, minimum R. 0-2-9). Owing to the deterioration caused by famine, some temporary remissions of revenue have been made since.

The collections of land and total revenue for a series of ten years are shown below, in thousands of rupees:

	1880-1	1890-1	1900-1	1903-4
Land revenue . .	1,99	2,03	1,95	2,64
Total revenue . .	4,05	5,11	4,41	5,78

The management of local affairs, outside municipal areas, is entrusted to a District council and two local boards, each having jurisdiction over one *tahsil*. The income of the District council in 1903-4 was Rs. 42,000, while the expenditure included Rs. 18,000 on education and Rs. 11,000 on public works. BADNŪR and BETŪL are municipal towns.

The police force consists of 321 officers and men, including 3 mounted constables, under a District Superintendent. There are 1,262 village watchmen for 1,196 inhabited villages. Badnūr has a District jail, with accommodation for 143 prisoners, including 9 female prisoners. The daily average number of prisoners in 1904 was 51.

In respect of education the District ranks fourteenth in the Province, only 3·9 per cent. of the male population and but 118 females being able to read and write in 1901. The proportion of children under instruction to those of school-going age is 6 per cent. Statistics of the number of pupils are as follows: (1880-1) 1,513, (1890-1) 2,578, (1900-1) 2,452, and (1903-4) 3,545, including 32 girls. The educational institutions comprise an English middle school, three vernacular middle schools, and 60 primary schools. The only girls' school in the District is at Betūl, and does not flourish. The expenditure on education in 1903-4 was Rs. 24,000, of which Rs. 21,000 was derived from Provincial and Local funds, and Rs. 2,000 from fees.

The District has 3 dispensaries, with accommodation for 41 in

patients. In 1904 the number of cases treated was 15,992, of whom 398 were in-patients, and 388 operations were performed. The expenditure was Rs. 5,400, the greater part of which was provided from Provincial and Local funds.

Vaccination is compulsory only in the municipal towns of Badnūr and Betūl. The number of persons successfully vaccinated in 1903-4 was 59 per 1,000 of the District population—a very favourable result.

[B. P. Standen, *Settlement Report* (1901). A District Gazetteer is under preparation.]

Betūl Tahsīl.—Western *tahsīl* of Betūl District, Central Provinces, lying between 21° 22′ and 22° 22′ N. and 77° 11′ and 78° 3′ E., with an area of 2,770 square miles. The population in 1901 was 170,994, compared with 194,719 in 1891. The *tahsīl* has two towns, BADNŪR (population, 5,766), the District and *tahsīl* head-quarters, and BETŪL (4,739); and 777 inhabited villages. The density is 62 persons per square mile. Excluding 825 square miles of Government forest, 56 per cent. of the available area is occupied for cultivation. The cultivated area in 1903-4 was 786 square miles. The demand for land revenue in the same year was Rs. 1,49,000, and for cesses Rs. 16,000. The *tahsīl* covers nearly the whole breadth of the Sātpurā plateau, and consists of a fairly open and fertile plain in the centre, with ranges of hills encircling it on three sides.

Betūl Town.—Town in the District and *tahsīl* of the same name, Central Provinces, situated in 21° 52′ N. and 77° 56′ E., three miles from Badnūr, on the road to Multai and Nāgpur. Population (1901), 4,739. Betūl is declining in importance, being overshadowed by the neighbouring and newer town of Badnūr, the District head-quarters. It was created a municipality in 1867. The municipal receipts during the decade ending 1901 averaged Rs. 4,500. In 1903-4 the income was Rs. 3,300, principally derived from a house tax. Pottery, gold- and silver-work, and the manufacture of lac bangles are the local handicrafts, and a weekly cattle market is held. Betūl contains a vernacular middle school and a girls' school.

Betwā (*Vetravatī*, or 'containing canes').—A large river of Northern India. It rises in Bhopāl State at the village of Kumrī (22° 55′ N. and 77° 43′ E.), and flows in a generally north-eastern direction. After a course of about 50 miles in Bhopāl, it enters Gwalior territory near Bhīlsa. It first touches the United Provinces in the south-west corner of the Lalitpur *tahsīl* of Jhānsi District, and flows north and north-east, forming the boundary between that District and the Gwalior State. It then crosses the District obliquely, traverses part of the Orchhā State, and flows for some distance between Jālaun on the north and Jhānsi and Hamīrpur on the south, falling into the Jumna, after a course of about 190 miles in the United Provinces, close to the town of Hamīrpur.

the upper part of its course the Betwā flows over the Vindhya sandstone, crossed by veins of quartz which break it up into beautiful cascades. At Deogarh it passes in a magnificent sweep below a steep sandstone cliff on the eastern bank, surmounted by a ruined fort. Below Jhānsi its bed is granite for about 16 miles till it reaches the alluvial plain. It is nowhere navigable, and its crossings are often dangerous. There are railway bridges at Barkhera on the Bhopāl-Hoshangābād section of the Great Indian Peninsula, at Sānchī on the Bhopāl-Jhānsi section, at Mangaolī on the Bīna-Guna line, and near Orchhā on the Mānikpur-Jhānsi line. Road bridges cross it at Bhīlsa and at Orchhā. At Parīchhā, 15 miles from Jhānsi, the river has been dammed to supply the Betwā Canal, a protective work which serves part of Jhānsi, Jālaun, and Hamīrpur, and was found of great value in 1896-7. Proposals are under consideration for damming the river at other places, so as to increase the amount of water available, and one dam has recently been completed. The chief tributaries are the Bes in Central India, the Jamni and DHASĀN in Jhānsi, and the Pāwan in Hamīrpur. The Betwā is mentioned in the Purānas, and also in the *Meghaduta* of Kālidāsa. According to tradition, the Pāndavas fought with the king of Videsa (Bhilsa) on its banks.

Beypore River.—River of Southern India, flowing into the Arabian Sea in 11° 10′ N. and 75° 50′ E., and the most important of the rivers in the south of Malabar District, Madras. It is fed by numerous streams which drain the Nilambūr valley, the chief of which are the Ponpula, or 'gold river,' Cholayar, and Karimpula. They unite above Nilambūr, and the river flows through the north of Ernād, forming the boundary of that *tāluk*. It is about 90 miles in length, and navigable at all seasons as far as Mambāt at the foot of the Vāvūl range; in the rains small boats go up beyond Nilambūr, and timber is floated down in large quantities from the forests above. Near its mouth the river is connected by narrow channels with Kallāyi, the chief timber dépôt of Malabar, and with Calicut by the CONOLLY CANAL. The bar at the mouth has always 12 feet of water over it, and at high tides from 16 to 18 feet.

Beypore Village.—Village in the Calicut *tāluk* of Malabar District, Madras, situated in 11° 11′ N. and 75° 49′ E., near the mouth of the river of the same name, on its right bank. Many attempts have been made to utilize the natural advantages of the position, but not with much success. Saw-mills were opened in 1797, a canvas factory in 1805, iron-works in 1848, and later a shipbuilding yard; but all failed. For some years it was the terminus of the Madras Railway on the west coast. Population (1901), 1,500. The value of trade in 1903-4 was: imports, lakhs; exports, 9 lakhs.

Beyt Shankhodhar.—An islet in the Gulf of Cutch, forming

a petty subdivision attached to the Okhāmandal *tāluka*, Amreli *prānt*, Baroda State. The name Shankhodhar is derived from the number of *shankhs* or conchs found there, or from its fancied resemblance to this shell. This island contains only one town, Beyt, situated in 22° 35′ N. and 69° 9′ E., the population of which in 1901 was 4,615. Its area is only 4 square miles; but it is a most sacred place to Hindus, especially *Vaishnavas*, as according to their legends a demon called Shankhāsur here swallowed the Vedas, which could not be recovered until Vishnu became incarnate as a fish, and pursued Shankhāsur into the depths of the sea, whence he brought back the sacred books. The principal temples are the old and new sacred shrines of Shankh Nārāyan, and those dedicated to Krishna's four wives and his mother. The latter shrines were of some antiquity, but were blown up by a British force in the war with the Wāghers in 1859. They were, however, rebuilt in the same year by Khande Rao Gaikwār. The town possesses a municipality, which receives an annual grant from the State of Rs. 900; a magistrate's court, and a dispensary. The harbour is deep and spacious, and small steamers can anchor close to the town in all seasons.

Bezwāda Subdivision.—Subdivision of Kistna District, Madras, consisting of the *tāluks* of BEZWĀDA, NANDIGĀMA, NŪZVĪD, and the *zamīndāri tahsīl* of TIRUVŪR.

Bezwāda Tāluk.—*Tāluk* of Kistna District, Madras, lying between 16° 18′ and 16° 44′ N. and 80° 21′ and 80° 52′ E., on the left bank of the Kistna river, with an area of 422 square miles. The population in 1901 was 124,170, compared with 106,477 in 1891. BEZWĀDA (population, 24,224) is the head-quarters, and there are 107 villages. The demand on account of land revenue and cesses in 1903–4 amounted to Rs. 3,15,000. The *tāluk* includes the Kondapalli hills, but most of it is a flat expanse of black cotton soil. Good main roads lead towards Hyderābād, Ellore, and Masulipatam, but communication with the two latter places during nine months in the year is principally by the main canals of the Kistna irrigation system. The country is liable to floods, owing to the freshes which come down the river. The highest flood on record was that of 1903, when the river embankment gave way and Bezwāda town and part of the *tāluk* were submerged.

Bezwāda Town.—Town in Kistna District, Madras, situated in 16° 31′ N. and 80° 37′ E., on the northern bank of the Kistna river, and at the foot of a low range of hills. It is the head-quarters of the *tāluk* and subdivision of the same name, the central point on which all the communications of the District converge, and the site of the great anicut (dam) across the Kistna river. From it are led off the waterways that traverse the delta and connect the District with Nellore, Madras, and Godāvari Railways running to Madras, Calcutta, the

Nizām's Dominions, and the Ceded Districts meet at Bezwāda. Through the town passes the high road from Masulipātam to Hyderābād, while from the opposite bank of the river runs the great northern road from Madras via Guntūr. The East Coast line of the Madras Railway enters the town over a girder-bridge three-quarters of a mile long; and a telegraph wire that crosses the river from Bezwāda to Sītānagaram is the longest single span of such wire in the world, being over 5,000 feet in a straight line from support to support.

Bezwāda had a population in 1901 of 24,224 (Hindus, 20,377; Musalmāns, 3,194; and Christians, 605), a remarkable increase upon the total for 1881, which was only 9,336. It was constituted a municipality in 1888. The municipal revenue and expenditure during the ten years ending 1902–3 averaged Rs. 43,000. In 1903–4 the revenue and expenditure was Rs. 48,000, the chief sources of income being taxes on houses and lands and tolls. A scheme for supplying the town with water has been considered and dropped. Bezwāda is the head-quarters of several of the engineers of the Public Works department in charge of the delta irrigation works, and contains a high school managed by the Church Missionary Society. It possesses a considerable internal trade; and, from its position at the head of the canal system, it is a place of transhipment through which goods pass to and from different parts of Godāvari District.

From an antiquarian point of view, Bezwāda is of some interest. Attempts have been made to identify it with the place at which the Chinese pilgrim Hiuen Tsiang, who visited India in the seventh century A.D., resided for some months in a Buddhist monastery. The foundation for this belief rests on the view that the cuttings on the hills overhanging the town on the west mark the site of the monasteries he mentions. The authorities, however, are not agreed on this point; Dr. Burgess, who examined the spot in 1881, holds that these cuttings are nothing more than old quarries. It is a significant fact that Hiuen Tsiang in his narrative makes no mention of the Kistna, which he could hardly have failed to do had the place he describes been on the site of the modern Bezwāda. Not far from the town on the south side of the river are situated the famous cave shrines of UNDAVALLE. In the seventeenth century Akanna and Madanna, ministers of Abul Hasan, the last of the Kuth Shāhi dynasty of Golconda, fixed their head-quarters at Bezwāda, perhaps with a view to being as far as possible out of the reach of the Mughal emperor. There is a popular legend to the effect that from the Telegraph Hill above the town a subterranean passage led to Hyderābād, by which the ministers could perform the journey to court and back in a single day.

Bhābar.—A portion of Nainī Tāl District, United Provinces, comprising the *parganas* of Chhakhātā Bhābar, Chaubhainsī Bhābar,

Kālādhūngi, Chilkiyā, and Kotā Bhābar, and lying between 28° 51′ and 29° 35′ N. and 78° 57′ and 80° E., with an area of 1,279 square miles. Population fell from 100,178 in 1891 to 93,445 in 1901. There are 511 villages and four towns, the largest being HALDWĀNĪ (population, 6,624), the cold-season head-quarters of the District. The demand for land revenue in 1903-4 was Rs. 13,000, and no cesses are levied. The density of population, 73 persons per square mile, is the lowest in the District. This tract consists of a long narrow strip immediately below the hills, and a great part of it is covered with thick forest or dense jungle. The hill torrents sink into the porous mass of gravel, boulders, and earth which make up the Bhābar, and, except during the rains, water can hardly be obtained. Cultivation is thus entirely dependent on canal-irrigation, by means of which magnificent crops of oilseeds are raised. The population is largely migratory, and moves up to the hills in the hot season, returning in November. The greater part of the cultivated land is held directly from the state as landlord. Including rents, the gross income from the land is about 1·4 lakhs. In 1903-4 the area under cultivation was 89 square miles, almost all of which was irrigated.

Bhābar. -Petty State under the PĀLANPUR AGENCY, Bombay.

Bhabuā Subdivision.--Western subdivision of Shāhābād District, Bengal, lying between 24° 32′ and 25° 25′ N. and 83° 19′ and 83° 54′ E., with an area of 1,301 square miles. The subdivision consists of two sharply defined portions. To the north there is a flat alluvial plain, and to the south the Kaimur range, a tract of hills and jungle, sparsely cultivated and thinly populated. The population in 1901 was 306,401, compared with 344,902 in 1891, the density being 236 persons per square mile. The Kaimur Hills afford little space for cultivation, and the Bhabuā *thāna*, with 181 persons per square mile, has the scantiest population of any tract in South Bihār. The whole of the subdivision is very unhealthy, and it also suffered severely in the famine of 1896-7. It contains one town, BHABUĀ (population, 5,660), its head-quarters; and 1,427 villages. An old Hindu temple stands on Mundeswarī hill, and Chainpur also contains antiquities of some interest.

Bhabuā Town.- Head-quarters of the subdivision of the same name in Shāhābād District, Bengal, situated in 25° 3′ N. and 83° 37′ E. Population (1901), 5,660. It is connected by road with Bhabuā Road station on the Mughal Sarai-Gayā section of the East Indian Railway. Bhabuā was constituted a municipality in 1869. The income during the decade ending 1901-2 averaged Rs. 4,200, and the expenditure Rs. 3,500. In 1903-4 the income was Rs. 5,000, mainly from a tax on persons (or property tax); and the expenditure was Rs. 4,000. The town contains the usual public buildings; the sub-jail has accommodation for 14 prisoners.

Bhādarva.—Petty State in REWĀ KĀNTHA, Bombay.

Bhadaur.—Town in the Anāhadgarh *nizāmat* and *tahsīl*, Patiāla State, Punjab, situated in 30° 28′ N. and 75° 23′ E., 16 miles west of Barnāla. Population (1901), 7,710. Founded in 1718 by Sirdār Dunna Singh, brother of Rājā Ala Singh of Patiāla, it has since remained the residence of the chiefs of Bhadaur. It is a flourishing town, with a small manufacture of brass-ware.

Bhadaurā.—Mediatized petty chiefship in the Central India Agency, under the Resident at Gwalior, with a population (1901) of 2,275. The area is about 50 square miles, and it comprises 16 villages. Though the Bhadaurā family has long held its present possessions, the chiefship itself was created only in 1820 by a grant of 5 villages from Daulat Rao Sindhia, through the mediation of the Resident, the grantee Mān Singh undertaking to put a stop to the depredations of a marauding *girāsiā*, Sohan Singh. The chief is a Sesodia Rājput of the Udaipur house, and bears the title of Rājā. Jagat Singh Sesodia, son of Himmat Singh of UMRĪ, originally acquired Bhadaurā about 1720. The present chief, Ranjīt Singh, succeeded in 1901, and being a minor, the State is managed by a *Kāmdār* under the direct supervision of the Resident.

About 10 square miles, or 20 per cent., of the total area are under cultivation. The total revenue is Rs. 5,000, and the expenditure on the administration Rs. 4,000. The chief place is Bhadaurā, situated in 24° 48′ N. and 77° 24′ E., on the Agra-Bombay road, 11 miles north of Guna. Population (1901), 647. In former days some business used to be done with merchants who passed up and down the road, but the opening of the Guna-Bāran and Sīprī-Gwalior railways has reduced the traffic to a very small amount.

Bhadgaon.—Town in the Pāchora *tāluka* of East Khāndesh District, Bombay, situated in 20° 40′ N. and 75° 14′ E., on the left bank of the Girnā river, 34 miles south-east of Dhūlia. Population (1901), 7,956. It has been a municipality since 1869. The municipal income during the decade ending 1901 averaged Rs. 5,900. In 1903–4 the income was Rs. 6,900. In the neighbourhood is the Jāmda canal. There is some local trade in cotton, and two ginning factories are worked. The town suffered greatly from a flood in September, 1872, when about 750 houses were washed away. The town contains a Subordinate Judge's court, a dispensary, and four schools, of which one, for girls, contains 25 pupils.

Bhadli.—Petty State in KĀTHIĀWĀR, Bombay.

Bhadohi.—*Tahsīl* of Mirzāpur District, United Provinces. *See* KORH.

Bhādra.—Head-quarters of a *tahsīl* of the same name in the Reni *nizāmat* of the State of Bīkaner, Rājputāna, situated in 29° 6′ N. and 75° 11′ E., about 136 miles north-east of Bīkaner city, and 35 miles

almost due west of Hissār. Population (1901), 2,651. The town possesses a fort, a post office, a vernacular school attended by 78 boys, and a hospital with accommodation for 7 in-patients. The Bhādra *tahsīl*, which contains 109 villages and 31,994 inhabitants, was formerly the estate of one of the principal Thākurs; but he was in constant rebellion against the Darbār, and was finally dispossessed in 1818. More than 44 per cent. of the population are Jāts. The soil is on the whole good, a considerable area is cultivated, and a few villages generally receive a little water for irrigation from the Western Jumna Canal.

Bhadrāchalam.—Western subdivision and *tāluk* in the Agency tract of Godāvari District, Madras, lying between 17° 27′ and 17° 57′ N. and 80° 52′ and 81° 49′ E., with an area of 911 square miles. The *tāluk* is cut off from the rest of the District by the Eastern Ghāts, and extends along the left bank of the Godāvari river. The population in 1901 was 48,658, compared with 42,336 in 1891. It contains 320 villages, Bhadrāchalam being the head-quarters. The demand on account of land revenue and cesses in 1903–4 amounted to Rs. 23,000. Owing to its situation above the Ghāts, the climatic conditions of this *tāluk* are somewhat different from those of the remainder of the District. Variations in temperature are greater, and the rainfall is almost entirely due to the south-west monsoon. The *tāluk* is for the most part covered with hills and forests, the Government 'reserved' forests alone extending over 460 square miles, for which a District Forest officer has recently been stationed at Kūnavaram. The Sābari, a large river which joins the Godāvari at Kūnavaram, intersects it. *Cholam* (*Sorghum vulgare*) is the staple crop, though rice and a little tobacco are grown along the river banks.

Bhadrāchalam was formerly part of an estate in Hyderābād territory. It was ceded in 1860 and joined to the Central Provinces. In 1867 the minor feudatories in it were made practically independent of their suzerain, the *zamīndār* of Bhadrāchalam, while the forests and 104 hill villages over which the latter had never exercised authority were declared state property. In 1874 the *tāluk* was transferred to the Madras Presidency, and in 1879 the Scheduled Districts Act of 1874 was applied to it.

Bhadrakh Subdivision.—Southern subdivision of Balasore District, Bengal, lying between 20° 44′ and 21° 15′ N. and 86° 16′ and 86° 58′ E., with an area of 930 square miles. The subdivision is a fertile deltaic tract, watered by numerous streams which flow from the Chota Nāgpur plateau into the Bay of Bengal. The population in 1901 was 478,653, compared with 447,782 in 1891, the density being 515 persons per square mile. It contains one town, BHADRAKH (population, 18,518), its head-quarters; and 1,246 villages. A large trade passes through CHĀNDBĀLI port in the south of the subdivision.

Bhadrakh Town.—Head-quarters of the subdivision of the same name in Balasore District, Bengal, situated in 21° 3′ N. and 86° 31′ E., on the banks of the Sālandī at the 43rd mile of the trunk road below Balasore town. Population (1901), 18,518. The town derived its name from the goddess Bhadrakālī, whose temple stands near the river. It consists of a group of hamlets covering about 3 square miles, and is divided into two quarters, the Nayābazar on the right bank of the Sālandī and the Purānabazar on the left, the latter being the chief centre of trade. The principal articles of commerce are rice, salt, kerosene oil, cotton, cattle, and hides. The town contains the usual subdivisional offices; the sub-jail has accommodation for 14 prisoners.

Bhādran.—Town in the Baroda *prant*, Baroda State, situated in 22° 22′ N. and 72° 55′ E. Population (1901), 4,761. It is the head-quarters of the Sisva *peta*, a sub *mahāl* of the Petlād *tāluka*, and possesses a municipality, magistrate's court, vernacular school, and local offices. The inhabitants are chiefly engaged in the cultivation of tobacco, but there is also a fair trade in grain.

Bhadrapur.—Village in the Rāmpur Hāt subdivision of Birbhūm District, Bengal, situated in 24° 16′ N. and 87° 57′ E., 4 miles south of the Nawāda station on the East Indian Railway. Population (1901), 352. The village is interesting as containing the ruins of the palace of Mahārājā Nand Kumār (Nuncomar) There is a silk factory here.

Bhadreswar.—Town in the Serampore subdivision of Hooghly District, Bengal, situated in 22° 50′ N. and 88° 21′ E., near the bank of the Hooghly. Population (1901), 15,150. It is a thriving town and has the largest rice-market in the District. The Victoria Jute Mills give employment to 5,700 hands. Bhadreswar was constituted a municipality in 1869. The income during the decade ending 1901-2 averaged Rs. 12,000, and the expenditure Rs. 11,000. In 1903-4 the income was Rs. 16,000, of which Rs. 7,000 was derived from a tax on houses and lands; and the expenditure was Rs. 14,000.

Bhadreswar (or Bhadrawati).—Site of an ancient city, now a petty village, in the south-east of Cutch, Bombay. Most of the architectural remains have been removed for building stone; but the place is still interesting for its Jain temple, for the pillars and part of the dome of a Saiva shrine with an interesting *wāv* or well, and for two mosques, one of the latter almost buried by drifting sand from the shore. It was a very ancient seat of Buddhist worship; but the earliest ruins now existing belong to temples erected subsequent to A.D. 1125, when one Jagadeva Sāh, a merchant who had made a fortune as a grain-dealer in a time of famine, received a grant of Bhadreswar, and in repairing the temple 'removed all traces of antiquity.' The temple was a celebrated place of pilgrimage in the twelfth and thirteenth centuries. At the

close of the seventeenth century it was plundered by the Muhammadans, and many of the images of the Jain Tīrthankars were broken. Since then it has been neglected, and having fallen into ruins, the temple stones, and those of the old city fort, were used for the building of the seaport town of Munra or Mundra.

[J. Burgess, *Archaeological Survey of Western India*, pp. 206–7 (1874–5).]

Bhādva.—Petty State in KĀTHIĀWĀR, Bombay.

Bhadvāna.—Petty State in KĀTHIĀWĀR, Bombay.

Bhāgalpur Division.—A Division of Bengal, bounded on the north by Nepāl, and lying between 23° 48′ and 27° 13′ N. and between 85° 36′ and 88° 53′ E. The Division formerly included the District of Mālda, transferred to Eastern Bengal and Assam in 1905; and Darjeeling, which used to be part of the Rājshāhi Division, was at the same time attached to this Division. The head quarters of the Division are at Bhāgalpur town, except for a portion of the hot season when they are at Darjeeling. It includes five Districts, with area, population, and revenue as shown below:—

District.	Area in square miles	Population, 1901.	Land revenue and cesses, 1903-4, in thousands of rupees.
Monghyr	3,922	2,068,804	11,95
Bhāgalpur	4,226	2,088,953	9,31
Purnea	4,994	1,874,794	14,11
Darjeeling	1,164	249,117	2,09
Santāl Parganas	5,470	1,809,737	3,84
Total	19,776	8,091,405	41,30

The population in 1872 was 6,709,852, in 1881 it was 7,510,269, and in 1891 it had grown to 7,990,464, the density being 409 persons per square mile. In 1901 Hindus constituted 74·48 per cent. of the population, Muhammadans 16·82 per cent., and Animists 7·93 per cent., while other religions included Christians (16,989, of whom 13,363 were natives) and Jains (723).

The Division is intersected from west to east by the Ganges. The country to the north is for the most part a flat alluvial formation rising gradually towards the foot of the Himālayas, but the greater part of Darjeeling is situated in the Lower Himālayas. In the south the Santāl Parganas form part of the Chotā Nāgpur plateau, which also encroaches upon the southern portions of Bhāgalpur and Monghyr Districts, the hills extending in the latter District as far as the Ganges. These parts are peopled by the Dravidian tribes of Chotā Nāgpur, while north of the Ganges and east of the Mahānandā river, in Purnea District,

there is a strong admixture of the Koch tribe, the last of the invaders from the north-east, and in Darjeeling more than half the population are Nepālese.

The Division contains 14 towns and 18,670 villages; the largest towns are BHĀGALPUR (population, 75,760) and MONGHYR (35,880). Owing to plague in Monghyr at the time of the Census (March, 1901), the figure represents less than its normal population, and a second enumeration held four months later disclosed 50,133 inhabitants. Bhāgalpur town has a large export trade in agricultural produce; and a considerable traffic also passes through Monghyr, SĀHIBGANJ, and RAJMAHĀL. JAMĀLPUR contains the largest railway works in India, and KATIHAR is an important railway junction where the Eastern Bengal and the Bengal and North-Western Railway systems meet. The hill station of DARJEELING is the summer head-quarters of the Bengal Government and a military cantonment; the Census held at the end of the cold season of 1901 disclosed a population of 16,924 persons, but at a special Census taken during the previous rains 23,852 persons were enumerated. The temples of Baidyanāth at DEOGARH in the Santāl Parganas are a great centre of Hindu pilgrimage, and rock sculptures are found in Bhāgalpur District. The most important historical event of recent times was the Santāl rebellion in 1855, which led to the formation of the Santāl Parganas into a non-regulation District.

Bhāgalpur District (*Bhaglipur*, meaning the 'city of good luck' or 'the city of refugees'). Central District of the Division of the same name, lying between 24° 33′ and 26° 34′ N. and 86° 19′ and 87° 31′ E., with an area of 4,226 square miles. It is bounded on the north by Nepāl; on the east, north of the Ganges, by the District of Purnea; on the south and east, south of the Ganges, by the Santāl Parganas; and on the west by the Districts of Darbhangā and Monghyr.

Physical aspects.

The District is divided into two nearly equal parts by the Ganges. The northern half forms a continuation of the great alluvial plain of Tirhut, being intersected by many rivers which are connected with each other by numerous *dhārs* or watercourses. The southern and eastern portions of this tract are liable to inundation by the flooding of these rivers and by the overflow of the Ganges on its northern bank. The north-eastern part of the District, which was formerly one of the most fertile regions in the sub-*tarai* rice tract, has been devastated by the changes in the course of the river Kosi. On the south of the Ganges the land is low, but about 20 miles south of Bhāgalpur town it rises gently till it merges in the hilly country of the Chotā Nāgpur plateau.

The river system consists of a reach of the Ganges, about 60 miles in length, with numerous Himālayan affluents on its north bank and a few

hill streams on the south, which become in the rains large rivers, but for the rest of the year are sandy watercourses; of the latter the only stream worthy of mention is the Chāndan. The northern rivers, of which the most important are the Tiljūgā, Batī, Dimrā, Talabā, Parwān, Kosi, Dhusān, Chalaunī, Loran Katnā, Daus, and Ghugri, run mostly from north to south with a slightly eastward tendency. The larger of them rise in Nepāl at the foot of the Himālayas and fall into the Ghugri, which in its turn joins the Kosi 6 miles from the confluence of that river with the Ganges at Colgong. The two most important rivers, the Kosi and the Ganges, have changed their courses in the past and are liable to change them again in future. The channel of the Kosi has been steadily advancing westward; and the large trading village of Nāthpur, which in 1850 lay some miles west of the river, has been swept away and its site now lies many miles east of it. There are no lakes in Bhāgalpur, but shallow marshes are numerous. Large tracts of land are flooded every year in the rains, and, as they dry up, are cultivated and are very fertile.

The geological formations represented are the Archaean, the Gondwāna, and the Gangetic alluvium. Throughout the greater part of the District the older rocks are almost entirely concealed by alluvium. In the south the Archaean rocks rise above the level of the alluvial plain, and consist partly of crystalline rocks of varied constitution, belonging to the division designated Bengal gneiss, partly of a very ancient series of altered stratified rocks, not unlike the Dhārwār schists of Southern India. Along the southern banks of the Ganges various rocks are exposed in detached spurs and outlying prolongations of the Rājmahāl hills. Some small islands of an exceptionally granitoid gneiss occur in the Ganges at Colgong. The remaining exposures belong to the Gondwāna series. The hills at Pīrpainti consist of basic volcanic rocks of the Rājmahāl group, which belongs to the Upper Gondwāna; those at Patharghāta, north-east of Colgong, of Dāmodar rocks belonging to the lower coal-bearing series. The latter contain siliceous white clays suitable for the manufacture of many articles of hard pottery, and have been unsuccessfully explored for coal[1].

The north of the District is covered in places by deposits of sand left by the Kosi, on which nothing grows except high jungle grass; but the greater part consists of fertile land. South of the Ganges the soil is rich and covered with crops, and mango and palm groves abound. The latter, however, practically cease in the rising ground 20 miles south of Bhāgalpur town, and mangoes grow only in scattered groups; the *mahuā*-tree (*Bassia latifolia*) here becomes common, the red cotton-tree (*Bombax malabaricum*) attains a great size, and patches of *dhāk*

[1] This account was contributed by Mr. E. Vredenburg, Deputy Superintendent, Geological Survey of India.

jungle appear, interspersed with large trees, the most important being the *sāl* (*Shorea robusta*), the *ābnūs* or Indian ebony, and *Terminalia*.

The sloth or Indian bear (*Melursus ursinus*) occurs in the south of the District; it is usually harmless unless attacked. Tigers are found occasionally in the high grass jungles of the Kosi in the north-east, and leopards in the hilly country to the extreme south of the District, while several species of wild cat are met with, including the palm civet or 'toddy cat' (*Paradoxurus niger*), so called from its alleged habit of drinking the juice of the palmyra palm. Wild hog are found in all parts of the District, but are most common north of the Ganges, where they do considerable damage to the crops and are used by the lower castes for food.

The climate is pleasant and healthy. In the south the summer months are very hot, but in the extreme north the climate is cool throughout the year. Mean temperature varies from 62° in January to 80° in May. The highest average maximum is 97° in April. The annual rainfall averages 51 inches, of which 8·5 inches fall in June, 13·1 in July, 11·7 in August, and 9·3 in September. Rainfall is fairly evenly distributed over the whole area, but the average is rather higher towards the north.

The earthquake of 1897 caused considerable damage in Bhāgalpur town, but only one life was lost. In September, 1899, the eastern part of South Bhāgalpur, including the country about Colgong, suffered very severely from a heavy flood. Owing to a cyclonic cloud burst, the river Chāndan rose in flood, broke its embankments, and flooded all the country in the neighbourhood of Ghogā, while the railway bridge near Ghogā was washed away; altogether about 1,800 lives were lost and 25,000 houses destroyed. In 1906 serious distress was caused by floods in the extreme west of the Madhipurā and Supaul subdivisions, the crops being entirely destroyed in parts of the former; and there was also some distress in the head quarters subdivision between the Ganges and Tiljugā.

History.

Historically there is little of interest in the annals of Bhāgalpur until the later Musalmān times. The town of Bhāgalpur is occasionally referred to in the *Akbarnāma*, and in the *Ain-i-Akbarī* it is mentioned as the chief town of *mahāl* or *pargana* Bhāgalpur, which was assessed at Rs. 1,17,403. Akbar's troops are known to have marched through it when invading Bengal in 1573 and 1575; and in the second war against the Afghāns, Mān Singh made Bhāgalpur the rendezvous of all the Bihār contingents which in 1591 were dispatched thence to Burdwān before the invasion of Orissa. The town was subsequently made the seat of an imperial *faujdār* or military governor.

When the East India Company assumed the Dīwāni of Bengal

(1765), Bhāgalpur District formed the eastern part of the Muhammadan *sarkār* of Monghyr, and lay, with the exception of one *pargana*, to the south of the Ganges. At that time the country to the south and west was so unsettled, owing to the inroads of hill tribes, that the exact boundaries of the District in those directions cannot be determined; and it was not until 1774 that an officer was specially deputed to ascertain its limits. Till 1769 the revenue and criminal jurisdiction continued in native hands; but at the end of that year an English Supervisor was appointed, who lived at Rājmahāl and whose duties were 'to obtain a summary history of the provinces, the state, produce, and capacity of the lands, the amount of the revenues, the cesses, and all demands whatsoever which are made on the cultivators, the manner of collecting them, and the gradual rise of every new import, the regulation of commerce, and the administration of justice.' In 1772, when the Company took the management of the revenue into its own hands, it was found that during the past seven years more than 5 lakhs of land revenue had been embezzled annually. Measures were at once taken to put the collections on a more satisfactory footing, and the *zamīndārs* were ordered to live on their estates and attend to the collection of their rents, and were imprisoned if they fell into arrears. The Collector next turned his attention to the administration of criminal justice. The ravages of the marauding hill tribes in the south had become so serious that, in December, 1777, and January, 1778, 44 villages were plundered and burned, and in May, 1778, the hillmen actually carried off some of the Collector's tents within a few miles of Bhāgalpur town. Property and life were insecure, and it became a matter of supreme importance to pacify these hill tribes. In conjunction with Captain James Brown of Rājmahāl, Augustus Clevland, at that time Collector of the District, carried out a scheme which resulted in 1780 in the pensioning of the hill chiefs. From this time matters improved; and though the ravages of the hillmen did not at once cease, the prompt measures which followed upon each inroad at length produced the desired effect, and the country became finally free from attack.

There have been many changes of jurisdiction in the District, and it has lost little by little the character of a South Gangetic tract which it had when it first came into British possession. A stretch of 700 square miles on the north of the river was added to it in 1864, and a further important transfer was made in 1874, when the Kharagpur *pargana* was separated from Bhāgalpur and added to Monghyr District.

The most interesting archaeological remains are at MANDĀRGIRI; there are rock sculptures at JAHANGIRA and PATHARGHĀTA, a rock temple at COLGONG, and the remains of Buddhist monasteries at SULTĀNGANJ. The Birbandh, an embankment running for 20 miles

along the west bank of the Daus river in the north, is usually represented as being a fortification erected by a prince named Bīr—a supposition favoured by the fact that the Daus is at present an insignificant stream which does not need embanking. At one time, however, the river was possibly much larger, and it may be that the Bīrbandh was raised to restrain its overflow. At Champanagar near Bhāgalpur town there are two remarkable places of worship belonging to the Jain sect of Oswāls, one of them erected by the great banker of the eighteenth century, Jagat Seth; and also the mausoleum of a Muhammadan saint, Makhdūm Shāh, the inscription on which states that it was erected in 1615 by Khwāja Ahmad Samarkandi, *faujdār* of *sarkār* Monghyr. Other objects of interest near the town are the KARANGARH plateau, which formerly contained the lines of the Hill Rangers (a regiment embodied by Clevland about 1780), and a monument erected to the memory of Clevland by the landholders of the District.

Population.

The population of the present area increased from 1,826,038 in 1872 to 1,967,635 in 1881, to 2,032,696 in 1891, and to 2,088,953 in 1901. The District is generally healthy, but the Kishanganj *thāna* and parts of Madhipurā bordering on the Kosi are notoriously malarious. Cholera usually occurs in localized epidemics from April to June and August to October; it was very severe and widespread in 1900. Deaf-mutism is prevalent in the Colgong, Bihpur, and Bhāgalpur *thānas* which adjoin the Ganges, and in the Supaul subdivision on the right bank of the Kosi. Details of the population in each subdivision in 1901 are given below:—

Subdivision.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Bhāgalpur	934	2	830	585,244	627	+ 6.0	30,675
Bānka	1,182		994	433,499	367	+ 2.4	13,117
Madhipurā	1,176	...	757	559,310	476	+ 2.8	12,791
Supaul	934	...	482	510,900	547	− 6.1	12,677
District total	4,226	2	3,063	2,088,953	494	+ 2.8	69,260

The two towns are BHĀGALPUR, the head-quarters, and COLGONG. The population is not so dense as in the Districts to the west, a fact which may be ascribed to a less fertile soil and less healthy climate, combined in the Madhipurā subdivision, where there has been an actual loss of population, with occasional floods from the Kosi which leave behind them a barren sediment of sand. There is a considerable gain by immigration from the Districts on the west and the United Provinces, which is more than counterbalanced by large emigration

to Purnea and the Santāl Parganas. The vernacular spoken is the Maithilī dialect of Bihārī; in the south a sub-dialect known as Chhikā Chhikī *boli* is used. Hindus number 1,875,309, or 89.8 per cent. of the total population, and Muhammadans 209,311, or 10 per cent.

Among the Hindus the most numerous castes are the Ahīrs and Goālās (367,000), Dhānuks (103,000), Musahars (94,000), Chamārs (90,000), Koiris (89,000), Tāntis (80,000), and Dosādhs (79,000), while other functional castes are also well represented. Being bounded by the Nepāl *tarai* on the north and the Santāl Parganas on the south, the District contains a large aboriginal element, and the Musahars, Chamārs, and Dosādhs consist almost entirely of semi-Hinduized aborigines. Gangautās (56,000, chiefly in the head-quarters subdivision) and Gonrhis (49,000, chiefly in the Supaul subdivision) are more common here than elsewhere; and there are 27,000 Santāls, mostly in the *thānas* bordering on the Santāl Parganas. Of the Muhammadans 92,000 are Shaikhs, but Jolāhās and Kunjrās are also numerous. Agriculture supports 68·6 per cent. of the population, industries 10·7 per cent., commerce 1·2 per cent., and the professions 0·9 per cent.

Two missionaries of the Church Missionary Society, stationed at Champanagar, a few miles from Bhāgalpur town, work in Bhāgalpur, Purnea, and Monghyr Districts. There is also an independent mission at Jaypur in the south of the District, and Bhāgalpur is a station of the Church of England Zanāna Missionary Society. In the latter town a fine church for the native congregation, a high school, an orphanage, and a leper asylum are superintended by missionaries. In 1901 the number of native Christians was 514.

Agriculture.

The soils on the two sides of the Ganges are very different. On the north the soil, like that of Lower Bengal, consists chiefly of good clays intermixed with sand, which are ordinarily very friable. On the south of the river five different kinds are found. Along the south-eastern boundary is a high belt of land some 6 to 10 miles wide, containing gravel, granite, jasper, and basalt; this is the least productive soil, but grows *rahar* and is well wooded. Of less elevation, but still above flood-level, is *bāri* land, which yields rich cold-season crops, such as wheat, barley, oats, mustard, and sugar-cane, and is classed as either *sālī* or *dosāl* according as it gives one or two crops in the year. Land fit for growing rice is known as *kheyārī* land, which is also divided into the same two classes according to the number of crops it produces; some of this land, however, loses much of its value from the presence of calcareous nodules or from efflorescence of soda. *Chaur* is very low marsh land, which cannot be cultivated till after the rainy season is passed. *Diāra* is land lying on the

bank of the Ganges which is subject to yearly inundation: it produces good cold-season crops and is very suitable for the cultivation of indigo. When covered with a layer of sand, it is called *bālūbandh*; and if the sand is not more than 18 inches deep, the long tap-root of the indigo plant reaches to the good soil below and the plant flourishes.

In 1903-4 the cultivated area was estimated at 3,320 square miles and the cultivable waste at 312 square miles, details by subdivisions not being available. About 35 per cent. of the cultivated area is twice cropped.

Rice is the staple food-grain. The principal crop is the *aghani* or winter rice, which is sown in May and reaped in December or January, and covers 1,707 square miles; while the *bhadoi* or early crop, which is also sown in May but reaped in August, covers 495 square miles. Other staple crops are maize (391 square miles) and *maruā* (192), while important food-grains are wheat (353), barley, *jowār*, and gram. Oilseeds include linseed, rapeseed, mustard, castor-oil, and *til*; cotton and jute are the chief fibres, but a new fibre, rhea, is now being grown at Bangaon and may possibly become important. Sugar-cane (100 square miles) is more extensively grown than in any other District of Bengal; on the other hand indigo with 12,000 acres, though still an important crop, has been affected by the fall in prices in recent years.

Improvements have been effected in the cultivation of sugar-cane, and the Nainī Tāl potato has also been introduced with success. Loans under the Agriculturists' Loans Act have been granted freely in times of distress; Rs. 36,000 was advanced in 1892-3 on account of the failure of the crops, Rs. 30,000 in 1897-8, another year of scarcity, and Rs. 16,000 in 1899-1900 in consequence of disastrous floods.

As elsewhere in Bihār, the cattle are of a better and stronger breed than those of Bengal proper. There is no lack of pasturage; the *ghoghrās* of Kātūria in the south and the *chaur* lands of the Dharampur *pargana* in the north provide abundance of grazing land, and scarcity of fodder is seldom experienced even in periods of drought or famine. The only cattle fair of importance is held at Singheswar in Madhipurā.

There are no canals; irrigation is carried on principally by means of reservoirs and the system of *āhars* and *pains* which is common throughout Bihār. A reservoir is made on the side of a hill near a river as high up as is feasible; and when the river comes down in flood, water is diverted into the reservoir and is subsequently carried where required over a series of terraces. This scheme of irrigation removes the need for canals, and produces excellent crops upon most unpromising land. It fails only when the opportunity of filling the

reservoirs is missed, and the last flood of the river comes down without advantage being taken of it. The area of land irrigated by means of tanks and wells is estimated at 1,121 square miles.

Lead ores (principally argentiferous galena) occur at Gaurīpur or Phāgā, Dahijār, Khāndā, Gamharia, Khajuriā, and Karikhar. At Phāgā 103 oz. 2 dwt. 12 grs. of silver and at Khajuriā 46 oz. 4 dwt. 3 grs. have been obtained per ton of lead from galena; but two attempts made to work galena in 1878-9 and in 1900 were soon abandoned. Other minerals existing in the District are sulphide of lead, sulphuret of antimony, malachite, talc, chlorite, and jasper. Iron ore is also distributed over the whole of the hilly country, but is not much worked. Close to Colgong there are several small hills consisting of piled masses of a very compact grey granite, which appears at one time to have been quarried for the construction of temples.

Trade and communications.

The principal manufactures are *tasar* silk and *bafta* cloths, indigo, *ghī*, iron and brass utensils, cloth, and lac bracelets. *Gur* (molasses) is made at Bānka and exported to Lower Bengal; coarse coloured glass used for bracelets is manufactured at Bhāgalpur; and carpets and blankets are made in the Central jail. The manufacture of *tasar* is carried on by means of hand-looms of a primitive kind. The silk is woven with a mixture of cotton in various proportions, and the pieces of cloth produced are called by different names according to the proportion of cotton in warp or woof. The indigo industry is declining owing to the competition of the artificial dye; and in 1903-4 the out-turn was only 75 tons. In Bhāgalpur town there are a few small factories of aerated water.

The chief imports are coal and coke, salt, cotton piece-goods, gunny-bags, gram and pulses, silk (raw), and tobacco (raw); the chief exports are rice and paddy, wheat, gram and pulses, linseed, mustard seed, and indigo. The imports are received by rail or steamer from Eastern Bengal or come down by road from Nepāl. In order to gauge the extent of trade with Nepāl, three registration posts have been established on the three main routes from the north; but a part of the trade comes by intermediate routes and so escapes observation. The export trade, like the import trade, is largely with Nepāl and Eastern Bengal. The important trade centres are: in the south, Sultānganj, Bhāgalpur, Colgong, Pīrpainti, Belhar, Amarpur, Barahāt, Jaypur, and Bānka; and in the north, Madhipurā, Kishanganj, Bangaon, Pratāpganj, Bihpur, and Supaul. In the south most of the trade is carried by the East Indian Railway loop-line and by the Steam Navigation Company, whose boats facilitate the carriage of grain from the Gangetic tracts. New trade facilities have been afforded by the opening of the railway connecting Sonpur with Katihār and the branch line from Bihpur to

Barāri, which have diverted a large amount of the trade of North Bhāgalpur, but have hardly affected traffic in the south.

Three main railway lines run east and west almost parallel through the District. The loop-line of the East Indian Railway (broad gauge) passes along the south bank of the Ganges, with a branch line from Sultānganj station to Sultānganj Ghāt for goods only. On the north bank runs the Hājīpur-Katihār extension of the Bengal and North-Western Railway (metre gauge). In connexion with it is a branch line from Bihpur to Barāri Ghāt, from which a steam ferry plies across the river to Bhāgalpur; it is proposed to construct a line from the south bank of the river to Bhāgalpur railway station. The Tirhut State Railway (metre gauge), worked as part of the Bengal and North-Western Railway system, passes through the north of the District, terminating on the east at Khanwā Ghāt on the Kosi, where it is connected by a ferry with the line from Anchrā Ghāt to Katihār. A new line running from Mansi in Monghyr north to Bhaptiāhī to connect the Hājīpur-Katihār Railway with the Tirhut State Railway is under construction, and from this line a branch will run to Madhipurā. A proposal has also been made to construct a branch from Bhāgalpur via Bausi to Deogarh in the Santāl Parganas.

Including 39½ miles of village tracks, the District contains 1,763 miles of road, of which 63½ are metalled. The principal metalled road leads from Bhāgalpur town to the Santāl Parganas via Jagdīspur and Bausi. Other important roads run west to Monghyr, east to Sāhibganj, and north to Madhipurā and Supaul.

The principal waterway is the river Ganges, on which traffic is carried on by the Steam Navigation Company. Most of the rivers in the north of the District are navigable for part of the year. The Tiljūgā is navigable by boats of 70 tons as far as Tilakeswar, and the lower reaches of the Dimrā and Talabā are navigable by boats of 9 tons. The Kosi is very dangerous for navigation, owing to the frequent changes in its course and its strong current during the rains. In addition to the ferries across the Kosi at Khanwā Ghāt and across the Ganges at Bhāgalpur, there are important ferries at Colgong and Sultānganj.

Famine.

Bhāgalpur has suffered from time to time from scarcity, and there are records of famines in 1770, 1775, 1779, and 1783. From that date there seems to have been no year of great distress till 1866, the year of the Orissa famine, when Bhāgalpur suffered considerably, the price of rice in July, 1866, rising to 8¼ seers for a rupee. In the famine of 1874 elaborate measures were taken to relieve distress. The total expenditure exceeded 9 lakhs, but a part of this consisted of advances to cultivators which were afterwards partially realized. In the famine of 1896–7 a portion

of the District, 300 square miles in area, was affected and required a limited amount of relief. Test works were opened early in 1897, but they failed to show any great demand for labour, the number of persons in receipt of relief never exceeding 25,000.

Administration. For administrative purposes the District is divided into four subdivisions, with head-quarters at BHĀGALPUR, BĀNKA, MADHIPURĀ, and SUPAUL. The District Magistrate-Collector is assisted at head-quarters by a staff consisting of five Deputy-Magistrate-Collectors and two Sub-Deputy Collectors, and also occasionally by a Joint or Assistant Magistrate. The outlying subdivisions are in charge of Deputy-Magistrate-Collectors, the subdivisional officers of Supaul and Madhipurā being usually assisted by a Sub-Deputy-Collector.

The civil courts subordinate to the District and Sessions Judge, who is also Judge of Monghyr, are those of three Sub-Judges at head-quarters and of five Munsifs, of whom two are stationed at Bhāgalpur and one each at Bānka and Madhipurā, while the fifth is an additional Munsif for Madhipurā and Begusarai in Monghyr. The criminal courts include those of the Sessions Judge, an Assistant Sessions Judge, the District Magistrate, and the above-mentioned magistrates. The commonest cases are those arising out of disputes about land; in recent years there has been an outbreak of dacoity in the north of the District.

As already stated, Bhāgalpur formed under Muhammadan rule part of the *sarkār* of Monghyr, and the amount of land revenue for which it was liable cannot be separately determined; it is, however, known that the *zamīndārs* in the hilly parts of the Bānka subdivision enjoyed a semi-independence and seldom paid any revenue at all. In consequence of the embezzlements which followed the Permanent Settlement, the land revenue in 1799 amounted to only 3·10 lakhs; and owing to the backward condition of the District at the time of the settlement and to the imperfect assessments originally made, the incidence of land revenue is extraordinarily low, amounting for the whole District to R. 0–4–6 per cultivated acre and to less than 11 per cent. of the rental. In many places, especially in the Bānka subdivision, there has been a great development of estates in recent years, and villages with a rental of more than Rs. 1,000 are paying a nominal revenue of Rs. 8 a year. In the north the westward advance of the river Kosi has washed away a number of estates, and the proprietors have allowed them to be sold for arrears of revenue. In this way the number of *khās mahāls* is increasing. In all, however, only 70 estates with a current demand of Rs. 38,000 are held direct by Government, the remainder of the District, with the exception of 10 temporarily settled estates paying Rs. 2,000, being permanently settled. During the last century the subdivision of estates has been remarkable, the

number of estates increasing thirty-fold and the number of proprietors eighty-fold in that time. In the south the rent of low land suitable for rice cultivation varies from 12 annas to Rs. 6 per acre and of *bhith* or high land from Rs. 3 to Rs. 9 per acre, while high jungle lands fetch only from 6 annas to Rs. 1-8-0. In the north, rice land varies from 12 annas to Rs. 4-1, and *bhith* land from 12 annas to Rs. 3-8 per acre. The average area of a ryot's holding in the south is from 8 to 15 acres, but in the north it is less. A ryot with a holding of 20 acres is considered to be well to-do, and holdings of more than 40 acres are almost confined to the *mahājan* class, who lend money and grain at interest.

The following table shows the collections of land revenue and of total revenue (principal heads only), in thousands of rupees:—

	1880-1	1890-1	1900-1	1903-4
Land revenue .	5,71	6,02	5,97	5,96
Total revenue .	14,15	15,07	17,46	17,28

Outside the municipalities of BHAGALPUR and COLGONG, local affairs are managed by the District board, to which subdivisional local boards are subordinate. In 1903-4 its income was Rs. 2,31,000, including Rs. 1,38,000 from rates, and the expenditure was Rs. 2,30,000, the chief item being Rs. 1,57,000 spent on public works.

The only important work constructed by the Public Works department is the Chāndan embankment. This extends for 3½ miles along the left bank of the Chāndan river, and protects an area of about 4½ square miles, including the village of Bānka and some low-lying land in the vicinity. Other smaller embankments have been constructed by *zamīndārs*.

The District contains 21 *thānas* or police stations and 10 outposts. The force subordinate to the District Superintendent in 1903 consisted of 4 inspectors, 33 sub-inspectors, 38 head constables, and 399 constables; there was also a rural police force of 194 *daffadārs* and 3,782 *chaukīdārs*. A company of military police is stationed at Bhāgalpur town. The training school for officers of the Bengal police service is at Bhāgalpur, and during the year 170 cadets and 9 probationary Assistant Superintendents were trained there. A Central jail at Bhāgalpur has accommodation for 1,964 prisoners, and subsidiary jails at Bānka, Madhipurā, and Supaul for 45.

Education is backward, only 3·3 per cent. of the population (6·6 males and 0·1 females) being able to read and write in 1901. An advance has, however, been made in recent years; for though the number of pupils under instruction fell from 21,286 in 1880-1 to 17,306 in 1892-3, it increased again to 25,387 in 1900-1. In 1903-4, 27,996 boys and 2,492 girls were at school, being respectively 18·1 and

1·5 per cent. of those of school-going age. The number of educational institutions, public and private, in that year was 1,319, including one Arts college, 19 secondary, 962 primary, and 337 special schools. The expenditure on education was Rs. 1,60,000, of which Rs. 15,000 was met from Provincial funds, Rs. 35,000 from District funds, Rs. 2,000 from municipal funds, and Rs. 74,000 from fees. The chief educational institution is the Tejnārāyan Jubilee College in BHĀGALPUR town; the only other notable school is the Sanskrit *tol* at KARANGARH. A Santāl boys' school and a Santāl girls' school near the eastern border have a large attendance, while all the primary schools in the south of the District are attended by boys of aboriginal races.

In 1903 the District contained 13 dispensaries, of which 6 had accommodation for 70 in-patients. At these the cases of 71,000 out-patients and 954 in-patients were treated during the year, and 4,206 operations were performed. The expenditure was Rs. 24,000, of which Rs. 1,800 was met from Government contributions, Rs. 8,000 from Local and Rs. 4,000 from municipal funds, and Rs. 8,000 from subscriptions.

Vaccination is compulsory only in municipal areas. In 1903–4 the number of persons successfully vaccinated was 72,000, representing 35·8 per 1,000 of the population.

[M. Martin (Buchanan Hamilton), *Eastern India*, vol. ii (1838); Sir W. W. Hunter, *Statistical Account of Bengal*, vol. xiv (1877).]

Bhāgalpur Subdivision.—Head-quarters subdivision of Bhāgalpur District, Bengal, lying between 25° 4′ and 25° 30′ N. and 86° 39′ and 87° 31′ E., with an area of 934 square miles. The subdivision consists of an alluvial tract of great natural fertility, bounded on the north by the Ghugri and intersected by the Ganges. The population in 1901 was 585,244, compared with 552,279 in 1891, the density being 627 persons per square mile. It contains two towns, BHĀGALPUR (population, 75,760), the head-quarters, and COLGONG (5,738); and 830 villages. Bhāgalpur, SULTĀNGANJ, and Colgong are important marts on the banks of the Ganges. There are archaeological remains of interest at these places, as well as at JAHĀNGĪRA, KARANGARH, and PATHARGHĀTA.

Bhāgalpur Town.—Head-quarters of the Division and District of the same name in Bengal, situated in 25° 15′ N. and 87° 0′ E., on the right bank of the Ganges and on the East Indian Railway, distant from Calcutta 265 miles by rail and 326 by river. Bhāgalpur figures more than once in Muhammadan chronicles of the sixteenth century. Akbar's troops marched through the town when invading Bengal in 1573 and 1575. In Akbar's second war against the Afghān king of Bengal, his Hindu general Mān Singh made Bhāgalpur the rendezvous of all the Bihār contingents, which in 1592 were sent thence over

Chotā Nāgpur to Burdwān, where they met the Bengal levies, and the united army invaded Orissa. The town was subsequently made the seat of an imperial *faujdār* or military governor. The town contains two monuments to the memory of Augustus Clevland, Collector of Bhāgalpur towards the end of the eighteenth century, one of brick, erected by the landholders of the District, the other of stone sent out by the Directors of the East India Company from England. Within the town and its neighbourhood (at Champanagar) are some interesting Muhammadan shrines, and two remarkable places of worship, belonging to the Jain sect of Oswāls, one of them erected by the great banker of the eighteenth century, Jagat Seth. The KARANGARH plateau near the town formerly contained the lines of the Bhāgalpur Hill Rangers organized by Clevland in 1780.

The population increased from 65,377 in 1872 to 68,238 in 1881, to 69,106 in 1891, and to 75,760 in 1901, of whom 70 per cent. were Hindus and 29 per cent. Musalmāns, while there were 333 Christians and 118 Jains. The town is thriving, its growth being due mainly to a great development in the export trade in agricultural produce, which has led to the opening of a second railway station. It contains the usual criminal, revenue, and civil courts, a police training school, Central jail, Arts college, dispensary with 32 beds, and a Lady Dufferin hospital. The jail has accommodation for 1,964 prisoners, who are employed in the manufacture of blankets and carpets, canework, furniture-making, carving, oil-pressing, grain-grinding, and rope-making. Cerebro-spinal fever has been practically endemic in the jail since 1897, outbursts occurring at varying intervals; the disease appears to be commonest among prisoners employed on dusty forms of labour, in the garden and on road-making. The Jubilee College, built by Bābu Tejnārāyan Singh, a *zamīndār* of the town, in 1887, was raised to the first grade in 1890, when law classes were opened. The college has a fine building and a strong staff of professors; a hostel for boarders is attached to it.

Bhāgalpur was constituted a municipality in 1864. The income during the decade ending 1901–2 averaged 1·36 lakhs, and the expenditure 1·15 lakhs. In 1903–4 the income was 1·29 lakhs, including Rs. 32,000 derived from a tax on houses and lands, Rs. 21,000 from a water rate, Rs. 11,000 from tolls, Rs. 12,000 from a conservancy rate, and Rs. 10,000 from a tax on vehicles. The incidence of taxation was Rs. 1–2–4 per head of the population. In the same year the expenditure was 1·12 lakhs, the chief items being Rs. 3,000 spent on drainage, Rs. 20,000 on conservancy, Rs. 9,000 on medical relief, Rs. 17,000 on roads, and Rs. 1,900 on education. The town is a very healthy one, with a natural system of drainage and a filtered water-supply, which was extended in 1896–7 to the suburbs of Nāthnagar and

Champanagar, a loan of 3 lakhs being advanced by Government for the purpose.

Bhāgīrathi.—River of Bengal, being an offshoot of the Ganges, which it leaves in Murshidābād District in 24° 35′ N. and 88° 5′ E.; it is also fed by tributaries from the eastern fringe of the Chotā Nāgpur plateau. After flowing through Murshidābād, it constitutes the boundary between Burdwān and Nadiā Districts, till, after a total course of 140 miles, it unites with the JALANGĪ in 23° 25′ N. and 88° 24′ E., to form the HOOGHLY. From the dawn of history till probably some time in the sixteenth century, the Bhāgīrathi formed the main stream of the Ganges; and in the eyes of Hindus this, and not the PADMĀ, is still the sacred stream. The Hindu traditional account of its origin is as follows: King Sagar was an ancestor of Rāma, and had ninety-nine times performed the *Aswamedha jajna* or 'great horse sacrifice,' which consisted in sending a horse round the world, with a defiance to any one to arrest its progress. If the horse returned unopposed, it was understood to be an acquiescence in the supremacy of the challenger, and the animal was then solemnly sacrificed to the gods. King Sagar made preparations for the hundredth performance of this ceremony; but the god Indra, having himself performed the sacrifice a hundred times, was jealous of being displaced by a rival, and therefore stole the horse and concealed it in a subterranean cell, where a holy sage was absorbed in heavenly meditation. The 60,000 sons of Sagar traced the horse to its hiding-place, and, believing the sage to be the author of the theft, assaulted him. The holy man, thus aroused from his meditation, cursed his assailants, who were immediately reduced to ashes and sentenced to hell. A grandson of Sagar, in search of his father and uncles, at last found out the sage, and begged him to redeem the souls of the dead. The holy man replied that this could only be effected if the waters of the Gangā (the aqueous form of Vishnu and Lakshmī) could be brought to the spot to touch the ashes. Now Gangā was residing in heaven under the care of Brahmā, the Creator; and the grandson of Sagar prayed, but unsuccessfully, that the goddess might be sent to the earth. He died without issue, but a son, Bhagīrath, was miraculously born of his widow, and through his prayers Brahmā allowed Gangā to visit the earth. Bhagīrath led the way till near the sea, and then declared that he could not show the rest of the road, whereupon Gangā, in order to make sure of reaching the bones of the dead, divided herself into a hundred mouths, thus forming the delta of the Ganges. One of these mouths arrived at the cell, and by washing the ashes completed the atonement for the sin of the sons of king Sagar.

In the past the great capitals of GAUR (Lakhnautī), PANDUA, RĀJMAHĀL, NABADWĪP, and SĀTGAON were situated on the banks of the Bhāgīrathi. Its earliest bed, known as the Saraswatī, left the modern

Hooghly at Sātgaon, and pursued a more westerly course to a point near the place where the Dāmodar now joins the Hooghly. Large vessels sailed up this river in the sixteenth century, and its silting up led to the establishment of the port and town of Hooghly by the Portuguese in 1637. Local traditions have preserved no record of the supplanting of the Bhāgīrathi by the present main channel of the Ganges, and it was probably effected very gradually. Changes on a great scale still take place in the bed of the Bhāgīrathi. Thus Nadiā was originally situated on the right bank, but the river, after rending in twain the ancient city, now leaves the modern Nadiā on its left bank. The Bhāgīrathi has also eaten away a portion of the battle-field of Plassey. In the present day its course frequently changes, and sandbanks and other obstructions are constantly being formed. The bed has largely silted up, and in the hot weather it degenerates into a string of pools connected by shoals which are seldom navigable during this season. It forms a part of the Nadiā Rivers system, and a series of efforts have been made by Government to keep its channel clear for navigation, but without very satisfactory results; a new dredging scheme has now been formulated. The chief tributaries of the Bhāgīrathi are: in Murshidābād, the united waters of the Bānsloi and Pāgla, and the Chorā Dekrā; and, in Burdwān, the Ajay and Kharī, all on the right bank. The principal towns on its banks are: in Murshidābād, Jangipur, Jiāganj, Murshidābād, and Berhampore; in Burdwān, Kātwa; and in Nadiā, Nabadwīp.

The name of Bhāgīrathi is also given to the main source of the Ganges in the Himālayas.

Bhagwāngolā.—River mart in the Lālbāgh subdivision of Murshidābād District, Bengal, situated in 24° 20′ N. and 88° 18′ E., on the Ganges. Population (1901), 989. There are in reality two villages of the name, 5 miles from each other, called New and Old Bhagwāngolā. The latter was under Muhammadan rule the port of Murshidābād and an important commercial town. In 1743 it was attacked four times by the Marāthās without success; but subsequently, in 1750, it was taken, plundered, and burned by them. Sirāj-ud-daula rested here in his flight to Rājmahāl. The river no longer flows by Old Bhagwāngolā, and the traffic is confined to the new town.

Bhainsrorgarh.—Village and fort in the State of Udaipur, Rājputāna, picturesquely situated in 24° 58′ N. and 75° 34′ E., at the confluence of the Bāmani and Chambal rivers, about 120 miles east-by-north-east of Udaipur city. The place is included in an estate of the same name, held by one of the first-class nobles of Mewār, who is styled Rāwat and belongs to the Chondāwat family of the Sesodia Rājputs. The estate consists of 127 villages, yielding an income of about Rs. 80,000, and pays Rs. 6,000 as tribute to the Darbār. The fort,

which is said to have been built by, and named after, a Mahājan called Bhainsa Sāh, possibly a servant of the Chauhān kings who ruled over Sāmbhar and Ajmer, overlooks the sole passage which exists for many miles across the Chambal. The place was taken by Alā-ud-dīn about 1303, and its palaces and temples were destroyed. At Barolli, about 3 miles north-east of Bhainsrorgarh, is a group of Hindu temples which Fergusson considered the most perfect of their age that he had met with in that part of the country and, 'in their own peculiar style, perhaps as beautiful as anything in India.' The principal temple, dedicated to Ghateshwar, stands in a walled enclosure which is full of other interesting buildings and remains, the most important being the Singār Chaorī or 'nuptial hall' of Rājā Hun; the shrines of Ganesh and Nārad; two columns, one erect and the other prostrate, probably intended as a *toran* or trilithon; the shrine of Asht Mātā; and the shrine of the Trī-murti or Hindu triad—Brahmā, Vishnu, and Siva. Outside the enclosure is a fountain or *kūnd* with a miniature temple in the middle, and surrounded by small shrines, in one of which is a figure of Vishnu, reposing on the *Sesh Shayya* or 'bed of the serpent,' which Fergusson thought the most beautiful piece of purely Hindu sculpture he had seen. These buildings are said to belong to the ninth, or possibly the tenth, century; and in carving and artistic conception there is nothing in Mewār to equal them, except perhaps the Sās Bahu temple at Nāgdā near UDAIPUR CITY.

[J. Tod, *Annals and Antiquities of Rajasthan*, vol. ii (1832); J. Fergusson, *Picturesque Illustrations of Ancient Architecture* (1848).]

Bhairab.—Old river of Bengal. The Bhairab has long been a partly deserted channel, and only sections of it can now be traced; but its name Bhairab ('the terrible') bears witness to the estimation in which it was once held, and in its prime it must have been of great hydrographic importance. The Bhairab takes off from the Ganges almost opposite to where the Mahānandā flows into it; and it is suggested that it originally formed a continuation of the Mahānandā, and that that river was cut into half by the Ganges as it worked its way eastwards. The Bhairab at one time flowed across the present Districts of Murshidābād, Nadiā, Jessore, and Khulnā into the Bay of Bengal, but was intersected and cut into three pieces by the Jalangī and Mātābhānga. In its upper course it at first silted up, but was subsequently forced open again by floods in 1874 at its intake from the Ganges, and expanded into an important distributary which poured its waters into the Jalangī 40 miles farther south. The result was that the channel of the Jalangī above the point of junction began to close up, and the Bhairab is now the channel by which the Jalangī proper derives its main water-supply from the Ganges. Lower down the Bhairab flowed for a short distance through the channels now occupied

by the Mātābhānga-Churnī, leaving them at Matiāri, whence it passed on towards Jessore. The main current was subsequently diverted down the Kabadak, which was apparently originally only an offshoot from the Bhairab at Tāhirpur. The Bhairab itself has silted up below Tāhirpur to such an extent that its bed above Jessore town is now little more than a line of marshes. From Basantia south of Jessore town the Bhairab is still a navigable stream and a portion of its waters join the Madhumatī river, while the remainder pass by the Rūpsa river through a separate estuary to the sea.

Bhairab Bāzār.—Village in the Kishorganj subdivision of Mymensingh District, Eastern Bengal and Assam, situated in 24° 2′ N. and 90° 59′ E., where the old Brahmaputra enters the Meghnā at the boundary junction of the three Districts of Dacca, Tippera, and Mymensingh. Population (1901), 618. It is the most important commercial mart of the District, possessing a large trade in jute and also in salt imported under bond. A large cattle market is held here.

Bhairabi.—River in Darrang District, Eastern Bengal and Assam. *See* BHARELI.

Bhairagniā.—Village in Muzaffarpur District, Bengal. *See* BAIRAGNIA.

Bhaironghāti.—Temple and pass in the State of Tehrī, United Provinces, situated in 31° 2′ N. and 78° 53′ E., at the confluence of the Bhāgīrathi with the Jādhgangā or Jāhnavī. Both rivers flow in deep gorges confined by perpendicular walls of granite, and the scenery is wild in the extreme. One traveller has described the rocks as resembling the massive towers, spires, and buttresses of some Gothic cathedral reft asunder by an earthquake. A light iron-wire suspension bridge, 250 feet long, crosses the Jāhnavī at a height of 350 feet above the torrent. The place is considered sacred to Bhairon (Siva), and is visited by many pilgrims.

Bhaisa Tāluk.—A former *tāluk* in the east of Nānder District, Hyderābād State, incorporated in MUDHOL in 1905.

Bhaisa Town.—Former head-quarters of the *tāluk* of the same name, and now a town in the Mudhol *tāluk* of Nānder District, Hyderābād State, situated in 19° 7′ N. and 77° 58′ E., on the northern bank of the Siddha river. Population (1901), 7,126. It contains the offices of the Second and Third Tālukdārs and of a police inspector, a Munsif's court, a post office, a dispensary, two schools, and a ginning factory. A weekly bazar is held, at which a large business is done in cattle, grain, and cotton. In the town are situated an old Jāma Masjid and the shrines of three Musalmān saints.

Bhaisākho.—*Thakurāt* in the BHOPĀWAR AGENCY, Central India; also known as Garhī.

Bhaisaundā.—One of the CHAUBE JĀGĪRS in Central India,

under the Political Agent in Baghelkhand, with an area of about 32 square miles, and a population (1901) of 4,168. The *jāgīr* was created by a readjustment of shares which took place in 1817. The present holder, Pandit Srī Chhatarsāl Prasād Jū, succeeded in 1885. He was educated at the Rājkumār College, Nowgong, and was entrusted with the management of his *jāgīr* in 1903. The *jāgīr* contains 20 villages. Of the total area, 10 square miles, or 31 per cent., are cultivated. The revenue is Rs. 9,000. Bhaisaundā, the chief place in the *jāgīr*, is situated in 25° 18′ N. and 80° 48′ E., 8 miles from Karwī station on the Jhānsi-Mānikpur section of the Great Indian Peninsula Railway. Population (1901), 1,386.

Bhāisola.—*Thakurāt* in the BHOPĀWAR AGENCY, Central India; also known as Dhotria.

Bhāja.—Village in the Māval *tāluka* of Poona District, Bombay, situated in 18° 44′ N. and 73° 29′ E., about 7 miles south-west of Khadkāla, and about 2 miles south of Kārli railway station. Population (1901), 366. It contains a group of eighteen early Buddhist caves of about the second and first century B.C., in the west face of the steep hill, some 400 feet above the village. Beginning from the north, the first is apparently a natural cavern 30 feet long and slightly enlarged. The next ten are plain cells. The twelfth cave forms a *chaitya* or chapel, and is, according to Dr. Burgess, of the greatest importance for the history of cave architecture. The cave is 59 feet long by about 29 feet wide, with a semicircular apse at the back, and an aisle 3 feet 5 inches wide separated from the nave by twenty-seven plain octagonal shafts 11 feet 4 inches high. The pillars rake inwards about 5 inches on each side, so that the nave is 15 feet 6 inches wide at the tops of the pillars and 16 feet 4 inches at their bases. The *dāgoba* or relic shrine is 11 feet in diameter at the floor, and the cylinder or drum is 4 feet high. The dome is 6 feet high and the box upon it is two-storeyed, the upper box being hewn out 1 foot 7 inches square inside with a hole in the bottom 1 foot 8 inches deep and 7 inches in diameter. The upper part of the box or capital is of a separate stone and hollowed, showing clearly that it held some relic. On four of the pillars are carved in low relief seven ornaments of Buddhist symbols. On the left of the seventh pillar is a symbol formed of four tridents round a centre, which perhaps contained a fan with buds and leaves at the corners. On the eighth pillar on the right side are two flowers and what looks like a fan, and on the left side a posy of holy flowers. The roof is arched, the arch rising from a narrow ledge over the triforium 7 feet 5 inches above the tops of the pillars and 26 feet 5 inches high from the floor. The roof is ribbed inside with teak girders, the first four of which, and parts of some of the others, have given way or been pulled down. The front must have been entirely of wood, and four holes in

the floor show the position of the chief uprights. There are also mortices cut in the rock showing where one of the chief cross-beams must have been placed, probably to secure the lattice-work in the upper part of the window. The front of the great arch is full of pin-holes in three rows, about 170 in all, showing beyond doubt that some wooden facing covered the whole of the front. The figures on the arch include that of a female—high up on the left, much weather-worn, with a beaded belt about the waist; two half figures looking out of a window in the projecting side to the right of the great arch, and on the same side the heads of two others in two small compartments on a level with the top of the arch.

For a full description of the remaining caves, which are also interesting, see the *Bombay Gazetteer*, vol. xviii. There are several inscriptions, but they contain no information of special interest.

Bhajji.—One of the Simla Hill States, Punjab, lying between 31° 7′ and 31° 17′ N. and 77° 2′ and 77° 23′ E., with an area of 96 square miles. Population (1901), 13,309. The State lies on the south bank of the Sutlej, and culminates in the Shali peak, 9,623 feet above sea-level. The Rānās of Bhajji are Rājputs who came from Kāngra and conquered the State many years ago. It was overrun by the Gurkhas between 1803 and 1815, but on their expulsion in the latter year the Rānā was confirmed in his possessions by the British Government. The present chief, Rānā Durga Singh, succeeded in 1875. The State has a revenue of Rs. 23,000, out of which Rs. 1,440 is paid as tribute. Its principal product is opium of exceptional purity. Seoni, the capital, lies on the Sutlej, and is celebrated for its sulphur hot springs and a suspension bridge across the river.

Bhakār.—Native State in the Central Provinces. *See* CHĀNG BHAKĀR.

Bhakkar.—Fortified island in the river Indus, Sukkur District, Sind, Bombay. *See* BUKKUR.

Bhakkar Subdivision.—Subdivision of Miānwāli District, Punjab, consisting of the BHAKKAR and LEIAH TAHSĪLS.

Bhakkar Tahsīl.—Central cis-Indus *tahsīl* of Miānwāli District, Punjab, lying between 31° 10′ and 32° 22′ N. and 70° 47′ and 72° E., with an area of 3,134 square miles. Most of it lies in the desolate plain of the THAL, but the Kachhi or strip of riverain land along the Indus is of great fertility. The population in 1901 was 125,803, compared with 119,219 in 1891. The *tahsīl* contains the town of BHAKKAR (population, 5,312), the head-quarters, and 196 villages. The land revenue and cesses amounted in 1903–4 to 1·7 lakhs. Places of interest in the *tahsīl* are MANKERĀ and Muhammad Rājan, at the latter of which is the shrine of Pīr Muhammad Rājan, who died there on a pilgrimage.

Bhakkar Town.—Head-quarters of the *tahsīl* of the same name in Miānwāli District, Punjab, situated in 31° 37′ N. and 71° 4′ E., on the left bank of the Indus and on the North-Western Railway. Population (1901), 5,312. It stands on the edge of the Thal or sandy plain overlooking the low-lying alluvial lands along the river, a channel of which is navigable as far as Bhakkar during the floods. To the west of the town the land is low, well cultivated, and subject to inundation, while to the east the country is high and dry, treeless, and sandy. A rich extent of land irrigated from wells lies below the town, protected by embankments from inundations of the Indus, and produces two or three crops in the year. The neighbouring riverain is full of date groves and fruit gardens; and in it stands a famous mango-tree, the fruit of which used to be sent to Kābul in the old days of Afghān rule. Bhakkar was founded probably towards the close of the fifteenth century by a body of colonists from Dera Ismail Khān, led by a Baloch adventurer, whose descendants held the surrounding country till ousted by the grantees of Ahmad Shāh Durrāni. The municipality was created in 1874. Its income and expenditure during the ten years ending 1902–3 averaged Rs. 7,700. The income in 1903–4 was Rs. 7,500, chiefly derived from octroi: and the expenditure was Rs. 8,600. The town contains a dispensary and a municipal vernacular middle school.

Bhālala.—Petty State in KĀTHIĀWĀR, Bombay.

Bhalgām Baldhoi.—Petty State in KĀTHIĀWĀR, Bombay.

Bhalgāmda.—Petty State in KĀTHIĀWĀR, Bombay.

Bhālki.—Head-quarters of the *paigāh tāluk* of the same name in Bīdar District, Hyderābād State, situated in 18° 3′ N. and 77° 12′ E., about 9 miles east of the confluence of the Kāranja with the Mānjra. Population (1901), 5,788.

Bhalsand (or Bharsand).—Town in the District and *tahsīl* of Balliā, United Provinces, situated in 25° 43′ N. and 84° 16′ E., 6 miles east of Balliā town. Population (1905), 5,777. The place is said to be of great antiquity, having been founded by a Rājā of Haldī early in the twelfth century. There is a small manufacture of coarse cloth. The school has 128 pupils.

Bhālusna.—Petty State in MAHĪ KĀNTHA, Bombay.

Bhambore (*Bambura*).—Ruined city near the village of Gharo, in the Mīrpur Sakro *tāluka* of Karāchi District, Sind, Bombay, situated in 24° 40′ N. and 67° 41′ E. Population (1901), 127. It was stormed by the Muhammadans on their first invasion in A.D. 711. Tradition preserves its old name as Debal, Dewal, or Dawal, 'the temple'; but it is believed that before the Musalmān invasion it was known under the name of the Mahara or Mansāwar. The ruins, as also the numerous coins found on the site, attest its former population and importance.

Bhamo District (Burmese, *Bamaw*).—Frontier District in the north of the Mandalay Division of Upper Burma, lying between 23° 37′ and 24° 52′ N. and 96° 34′ and 97° 46′ E., with an area of 4,146 square miles. It is bounded on the north by Myitkyinā District; on the east by the China frontier; on the south by the Shan State of Möngmit; and on the west by Kathā District. Down the centre of the District from north to south runs the Bhamo plain, about 100 miles long and 25 miles wide, shut in on every side by mountains, once forest-clad, but now sadly marred by the improvident *taungya*-cutter. On the east the uplands extend in a succession of ranges, forming a sea of mountains, and extending far into the great plateau of South-western China, with peaks near the frontier rising to 8,000 feet. On the west the hills bounding the plain are similarly arranged in parallel chains, running north and south and occasionally reaching an altitude of 4,000 feet, until another plain is reached, watered by the Kaukkwe stream running southwards into the Irrawaddy, and the Sitkala running northwards into it, the two rivers bounding the District on the west. The Irrawaddy, flowing down from the north, enters the District in a narrow defile between the two easternmost of these ranges, and debouches on to the Bhamo plain about 28 miles farther down. Here it turns south-east and bends round in one great sweep past the town of Bhamo, to pierce the highlands again about 30 miles lower down, running in another narrow defile to a little way above Shwegu, where it once more spreads out into a wide island-strewn channel, quitting the District after a farther course of 30 miles. The two defiles referred to are usually known as the third and second defiles. They are both beautiful, but are unlike in character. The former (the northern one) is wild and rugged; in the dry season the river wanders through a wilderness of fantastic rocks which in the rains break up the water into foaming impassable rapids. The latter is almost as imposing, the hills on the northern side ending in a magnificent wall, rising in one place to about 400 feet sheer out of the water. The river here presents an unruffled surface, sliding between the rocky walls in scenery unsurpassed in its contrast of deep-blue water and luxuriant forest. Above and below these two clefts the river spreads out near Bhamo to a width of 2 miles, containing numerous islands. Into the Irrawaddy on its left bank flow various streams from the north, south, and east, which spread out fanwise and drain the whole Bhamo plain to the east and south of the river. The sources of some of these are more than 100 miles apart, while a distance of only 20 miles separates their points of junction with the Irrawaddy. Proceeding from north to south the first of these rivers is the Mole, which rises in the Chinese hills and, after running a tortuous track southwards and westwards for 100 miles across a now almost deserted plain, empties itself

Physical aspects.

into the main stream at Hngetpyawdaw about 8 miles above Bhamo. Next below it is the TAPING, an ungovernable waterway which quits the hills at Myothit in the north-east of the District, and flows more or less parallel to the Mole into the Irrawaddy almost immediately above Bhamo. Numerous villages stand on its banks, but its course is described by the people themselves as like that of a drunken man; and some years ago it destroyed nearly all of these hamlets. South of the Taping are shorter streams, flowing more or less westwards—the Nansari and the Thinlin, along whose banks are dotted small Shan-Burmese villages. South of these again is the Moyu; and lastly, flowing in a north-westerly direction to join the Irrawaddy just above the second defile, is the Sinkan, which drains all the southern part of the plain. Deserted paddy-fields on its banks show that they must have been cultivated before the inhabitants were driven out by the Kachins, and it may yet, like the Taping, flow past prosperous villages; but at present the riches of the Sinkan valley lie in its forests. The plain between these several streams is mostly uncultivable, for it is high-lying and cut up in all directions by nullahs, and will long remain under thick tree-jungle or forest. The rivers entering the Irrawaddy on its right bank are less numerous than those on its left. A considerable portion of the western border is marked by the Kaukkwe, flowing southwards into the main stream a few miles west of Shwegu. The only other important waterway on this side is the Mosit, which empties itself into the Irrawaddy a little to the east of Shwegu.

A large portion of the District is covered by the alluvium of the Irrawaddy and its tributaries. The mountains on the east are formed of crystalline rocks, gneisses, schists, and crystalline limestones, with intrusive dikes of basic igneous rocks. Patches of Tertiary sandstones occur here and there. surrounded by the alluvium. The country has not yet, however, been examined carefully from a geological point of view.

The botany has not been studied as a whole, but the vegetation is rich and the flora varied. Bamboos and canes abound, and in the hills orchids are common. Large stretches of the plain land near the rivers are covered with thick elephant-grass.

The elephant, tiger, and *sāmbar* are met with in the wilder parts of the District, while hog deer and barking-deer abound everywhere. The leopard is ubiquitous, and at the foot of the hills wild hog are common. It is doubtful whether there are any real wild buffaloes, those met with being probably the progeny of the domestic animal. Snipe are comparatively scarce, but duck can be shot in many places, and partridge and jungle-fowl everywhere.

In the plains the cold-season months are cool, though near the rivers thick mists lie well into the morning, impeding traffic, and making the

air raw and disagreeable. On the hills in January it is very cold, frost occurring occasionally at as low an elevation as 500 feet above the plain. The hot months are close; the mountains shut off the plain from cool breezes in the rains, and towards the end of the monsoon the atmosphere becomes steamy and enervating. The District had a bad reputation for sickness till lately; but the conversion of a number of malarious back-waters in the neighbourhood of Bhamo town into permanent lakes has diminished the prevalence of fever among Europeans. Burmans from the dry zone, however, are still apt to sicken and die during the rainy season. The lowest temperature recorded at Bhamo town was 38° in 1891, and the highest 106° in 1890. The average maximum and minimum are about 87° and 60° respectively. The rainfall is fairly copious and regular. Since 1887 it has averaged about 72 inches per annum.

History.

The name of the District (*Banmaw* or *Manmaw*, converted by the Burmans into *Bamaw*) is Shan, and signifie 'the village of pots or potters.' The early history of Bhamo is legendary, but it is clear that at one time a powerful Shan State was more or less conterminous with the present District. It had its capital at Sampenago, the ruins of which are still to be seen at the northern end of the town of Bhamo, and became a Burmese dependency (with the Mongmit State) in the latter part of the sixteenth century. In 1668, according to Mr. Ney Elias, the Sawbwa, Sao Ngawk Hpa, instigated a Chinese attack upon Burma, but failing in his design, fled the country and was replaced by Min Gon, a Burmese general. In 1742 the Sawbwa freed himself from the Burmese yoke. Shortly afterwards, however, the Burmans, after repelling a Chinese invasion, which centred round Bhamo, permanently assumed control and appointed governors; but their hold on Bhamo was loose, and up to the time of the British occupation the *wun* in charge was often to all intents and purposes an independent ruler. A mission sent to inquire into the China-Burma trade, which had almost ceased owing to the Panthay rebellion in Yunnan, led to the appointment of a British Resident at Bhamo in 1869. Though British commerce benefited but little directly from this arrangement, trade in general increased rapidly, and the Irrawaddy Flotilla Company in 1874 carried 30 lakhs' worth of merchandise to and from Bhamo. On the re-establishment of the authority of the Chinese Government in 1875 a mission under Colonel Horace Browne was sent into Yunnan, by way of Bhamo, but failed to achieve its object, one of the party, Mr. Margary, who went ahead by himself, being murdered at Manwaing beyond the frontier.

The villages on the plains were at this time always being harried by the wild Kachins and Chinese. The Burmese government was quite unable to cope with the situation; and in 1885 a quarrel between the Bhamo *wun* and one Set Kyin, an adventurer who had raised a body of

Chinamen to put down a rising in Mogaung, led to an attack by the latter on Bhamo, when he drove out the *wun* and burnt almost the entire town.

The District was occupied by the British without opposition in December, 1885, but considerable difficulty was met with in controlling the Kachins and the outlaws they screened. The Hpunkan Kachins in particular, a tribe settled about 30 miles south-east of Bhamo, were extraordinarily bold, levying tribute in the villages of the Sinkan valley and attacking Sawadi on the Irrawaddy early in 1886. The Bhamo plain was raided more than once during that year, and on one occasion the hillmen effected an entry into Bhamo, killing three sepoys and burning the barracks. The raids continued throughout 1887, but no attempts were made to visit the Kachins in their hills. Early in 1889 a band of Chinese marauders harried the Mole valley, but were dispersed with a loss of fifty men. The Sinkan valley continued to swarm with dacoits, who were assisted by Kachins in the surrounding hills and in Möngmit, and were led by one Hkam Leng. A police attack on this outlaw at Malin was repulsed, and later on a British officer (Lieut. Stoddart) was killed by the gang, which invested Sikaw and for some time occupied Si-u. In the meanwhile the Hpunkan Kachins had again begun to cause trouble, and an expedition under General Wolseley marched through their tract, fined them, and proceeded to Namhkam. In December, 1889, a column was again sent through their country, acting in concert with columns from Möngmit and Hsenwi, but Hkam Leng managed to escape. During 1890–1 an expedition was organized to punish the Kachins settled on the hills east of Bhamo for their frequent raids on caravans; and in 1891–2 a force was dispatched into the Kaukkwe valley to obtain the submission of the Kachins of the western hill tracts, while a column marched along the whole eastern frontier from Namhkam to Sadon, in the present Myitkyinā District. During the rains of 1892 the Mole valley was disturbed by a pretender, known as the Setkyawadi Min, who was, however, killed before long. A post was established at Namhkam in 1893; and in 1893–4 the District was quiet, except on the hills east of Bhamo, where the Kachins attacked a column and killed three sepoys. The villages concerned were punished, and there have been no serious disturbances since. Myitkyinā District was cut off from Bhamo in 1895.

In the angle formed by the Taping and Irrawaddy at the extreme north end of Bhamo town are the ruins of the ancient capital of the kingdom, Sampenágo, which tradition places as contemporary with the Buddha Gautama. The moat and massive wall can still be traced. It s apparently coeval with the ancient city of Tagaung, farther south on e Irrawaddy. The beautiful pagoda at Shwekyinā, on the left bank f the Taping a little distance north of Sampenago, is attributed to

Asoka, as also are the Myazedi pagoda at Hakan, opposite Bhamo town, and the Shwezedi at Bhamo. Ruins of former cities stand near Shwekyinā and at the foot of the Kachin Hills east of Bhamo, while near Myothit are the remains of an old English or Dutch factory presumably built in the eighteenth century. In the Irrawaddy, just above Shwegu, is an island known as the Royal Island, remarkable for the number of religious buildings that have been crowded on it. It is said to have gained its reputation as a place of pilgrimage owing to a vision seen by a Sawbwa of old, which he commemorated in the usual Buddhist fashion; and it is now packed with pagodas and *zayats* (rest-houses). The main shrine, 60 feet in height, contains a curious full-length recumbent Buddha.

Population.

The population of the District in 1891, according to a partial Census, was 41,939. In 1901 it amounted to 79,515. Its distribution in the latter year is shown in the following table:—

Township.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile	Number of persons able to read and write.
Bhamo	1,723	1	598	57,572	33	5,689
Shwegu	2,423	...	185	21,943	9	4,332
District total	4,146	1	783	79,515	19	10,021

Bhamo, the head-quarters, is the only town. The average density is low, for the population is confined to the valleys. It must have been even lower in 1891, but the figures of that Census are too meagre to be of any value for purposes of comparison. Buddhism is the prevailing religion, but Animism is strongly represented. Shan, Burmese, and Kachin are all spoken, and are the vernaculars of three-quarters of the population.

About one-third of the population is composed of Kachins. The ıctual figure given in the census returns is 25,800; but practically all he inhabitants of the 'estimated' areas (regarding whom no race data vere collected in 1901, and who were computed to be about 1,500 in ıumber) are Kachins, and the total may be taken as 27,000, inhabiting he hilly areas of the District. Burmans numbered 20,300, and Shans o,900. It should be noted, however, that pure Burmans are to be ound only in Bhamo town, and in the Shwegu subdivision along the rawaddy, and that pure Shans reside nowhere but in the villages ing east and south of Bhamo along the Sinkan valley. In point fact, the majority of the non-Kachin population are composed of

a mixture of the two races, and should properly be called Shan-Burmans. Along the Taping valley and in other places are to be found Chinese-Shan settlers from the Chinese provinces of Mengla and Santa; they numbered 1,800 in 1901 and are increasing annually. There are nearly 3,000 pure Chinese, a fair proportion being Cantonese Chinamen who have come through Rangoon to settle and trade in Burma. The total number of immigrants from China numbered 4,100 in 1901, while natives of India numbered 4,200, including sepoys and military policemen. Of the total Indian population, 2,300 were Musalmāns, 1,400 Hindus, and 770 Sikhs. Bhamo contains a few Panthays (Chinese Muhammadans), who are engaged in the trans-frontier trade.

Altogether 54,216 persons, or 68 per cent. of the total population, are dependent upon agriculture, including 28,569 who support themselves by *taungya*-cutting ; but these figures do not include the population of the 'estimated' areas.

Native Christians in 1901 numbered 683, of whom 300 were Baptists and 112 Roman Catholics. The American Baptist Mission started work before the annexation ; they have large schools for Kachin boys and girls at Bhamo, where there is also a church and a school for Burmans and Shans. The Roman Catholics have fifteen nominally Christian villages containing ten churches, and have started a secondary school at Nahlaing, a village on the Taping. They work among both Shans and Kachins.

Agriculture.

Cultivation is practically confined to the borders of the streams, and to the hill-slopes where *taungya*-cutting is practised. The Sinkan valley possesses great agricultural possibilities, but it is now sparsely populated, owing to the depredations of the Kachins. The Mole valley has been similarly denuded of inhabitants, and the river banks are clad with forest and jungle. *Taungya* (shifting) cultivation is confined to the Kachins, who, however, also occasionally work ingeniously irrigated rice areas at the foot of the hills, and in some cases village paddy-fields. In the plains rice is grown in nurseries and transplanted, the ground being prepared by ploughing and harrowing. The fields irrigated by the Taping are frequently destroyed by its sudden floods and shiftings of channel. *Mayin* rice is grown in the backwaters near Bhamo, and along the Taping. Vegetables are to be found in nearly all Shan villages ; but the river banks and islands are not ordinarily planted with tobacco, as is the case elsewhere in Burma, only a little being grown on the right bank of the Irrawaddy. Plantains are plentiful, and English vegetables and fruits, notably strawberries, are successfully cultivated in Bhamo. Vegetables also thrive well in the experimental garden at Sinlumkabā started in 1897.

The main agricultural statistics for 1903-4 are shown below, in square niles:—

Township.	Total area.	Cultivated.	Irrigated.	Forests.
Bhamo . . .	1,723	23	...	4,000
Shwegu . . .	2,423	12	6	
Total	4,146	35	6	4,000

Out of the total area cultivated in 1903-4 (exclusive of the very extensive *taungya* cultivation), 32 square miles were under rice, including 2,000 acres of *mayin*. Gardens, which are practically all plantains, covered 1,600 acres, almost all being in the Bhamo township. *Kaing* (alluvial) crops are hardly grown at all, and tobacco covers only 180 acres. A coffee plantation (60 acres) is situated close to Bhamo.

Various species of non-indigenous fruit trees have been tried in the District, but otherwise very little has been done in the way of introducing new varieties of produce. Agricultural loans to the extent of Rs. 6,000 were advanced in 1903-4.

Buffaloes, locally bred, are much more used by the people of Bhamo than kine. There are, in fact, less than 600 bullocks in the whole District, and most of these are used for draught purposes only. A few goats are kept by natives of India. Ponies are brought in by the caravans from China and the Shan States, most of them for the Rangoon market; and sheep are imported to a small extent from China.

No large irrigation works have been constructed. Attempts have been made to regulate the course of the Taping, but they have not met with success. More than 3,600 acres in the Shwegu township are irrigated by small canals, branching from the rivers and carried sometimes for a considerable distance. The fisheries of the District have not yet been surveyed. They are let for the year to lessees, who generally sublet their rights over small areas for a few rupees a year. The fisheries are commonest in the Shwegu subdivision, the largest being the Indaw, opposite to Shwegu. This is a chain of lakes 7 square miles in extent, fed by a single narrow inlet, through which the fish crowd at the first rise of the river. Preparations for closing the inlet begin in October or November. *Yins*, or screens of split bamboos lashed on to a frame of jungle-wood, are stretched across the channel, and large quantities of fish are caught in their attempt to leave the fishery when the river falls. The remnant left in the lakes are then taken in nets and traps, or rendered more or less unconscious by the fishermen, who poison the water with a root known as *mahaga* and capture their victims on the surface. The fishery revenue amounted in 1903-4 to Rs. 28,000.

Forest lands are estimated to cover about 4,000 square miles, but only 311 square miles of this total are 'reserved' at present, and there are no protected forests. Unfortunately two-thirds at least of the area is adversely affected by the Kachin system of cultivation, the wasteful *taungya*. The loss due to *taungya*-cutting in the Kachin tracts is incalculable from the forest revenue point of view. The timber that comes from the forests in the north of the District is floated down to a revenue station at Shwegu, where it is examined and measured, while that extracted below Shwegu is taken to a station farther south. The forests are of various kinds: swamp, tropical, hill, dry, and mixed. A peculiar feature of the mixed forests is the disappearance in this latitude of the *pyingado* (*Xylia dolabriformis*) and the *kokko* (*Albizzia Lebbek*). Among many species that are met with are the *thabye* (*Eugenia sp.*), the *shaw* (*Sterculia sp.*), the *thadi* (*Bursera serrata*), the *taukgyan* and *thitsein* (*Terminalia sp.*), the *pyinma* (*Lagerstroemia Flos Reginae*), the *thitkado* (*Cedrela Toona*), the *kanyinbu* (*Dipterocarpus alatus*), the *kanyinni* (*D. laevis*), and several species of *Ficus*. In the *indaing* forests the *ingyin* (*Pentacme siamensis*) and common *in* (*Dipterocarpus tuberculatus*) are frequent. *Ingyin* timber leaves the District in large quantities. Teak is found in all the principal forests and is exported freely. During the twelve years ending 1902-3 about 110,000 logs were extracted, of which 38,000 came from the Mosit drainage, and more than 20,000 each from the Sinkan and Kaukkwe drainage areas. Many kinds of bamboos and canes are exported in considerable quantities, and the revenue from this source averages Rs. 15,000 annually. Other items of minor forest produce are *shaw* fibre and the *thin* reed from which Danubyu mats are made. The total forest receipts amounted in 1903-4 to Rs. 7,45,000.

Forests.

At present no minerals are found in sufficient quantity to be of commercial importance. Gold occurs in the form of fine grains and leaflets in recent deposits of the Irrawaddy, and in a much-decomposed gneiss in the neighbourhood of Myothit; and rubies and spinels, probably derived from the crystalline limestones, have been discovered in the river gravels. The Burma Gold-Dredging Company holds the right of dredging for gold in the bed of the Irrawaddy, from the confluence above Myitkyinā to the mouth of the Taping river.

Trade and communications.

The District is not noted for any particular industrial product. Cotton-weaving is carried on as a subsidiary occupation. Silver-work and iron-work are produced in fair quantities; the former is also imported from the Shan States, and is often of excellent design. Pottery, somewhat archaic in pattern, is made at Shwegu. The cotton-weaving carried by the Kachins is of special interest. The articles made are for

domestic use only, and are woven from imported yarn or from a home-grown cotton of pure white colour and glossy texture.

Bhamo has been a commercial centre of some importance for years. Two trade routes to China converge on it, one from Tengyüeh via Manwaing and Myothit, and one from Namhkam; and it is the northern terminus of the Irrawaddy Flotilla Company, which has sent steamers up to the town since 1869. Bhamo once had a rival in the now practically unknown village of Kaungton, at the entrance of the second defile of the Irrawaddy; but the caravans had to take what routes were open to them, and to modify them according to the vicissitudes of the petty wars that continued till the British occupation. After that date what trade would have gone to Kaungton and did actually go for some years to Sawadi, 9 miles below Bhamo, became diverted to Bhamo by the improvements in the Bhamo-Namhkam road. Consequently all the China-Burma trade coming into the District now passes through Bhamo. This trade, rudely disturbed by the Panthay rebellion, recovered but slightly on the re-establishment of the Chinese Imperial power in 1874, and owing to the *likin* oppressions of the Chinese authorities and the raids of the Kachins the traders have till recently undertaken heavy risks; so that, although the British occupation has stopped the latter and the establishment of customs stations in Chinese territory has been an attempt to introduce some kind of system into the former, business through Bhamo shows no signs of increasing largely in the immediate future. It is hoped, however, that the rebate of seven-eighths of the maritime customs duty on goods imported and re-exported to China will improve the frontier trade prospects. For the convenience of this re-export trade, a bonded warehouse has been built at Bhamo.

The principal overland imports from China into Bhamo, with their values in 1903-4, are as follows: raw silk ($3\frac{3}{4}$ lakhs), orpiment (2 lakhs), ponies and mules ($1\frac{1}{2}$ lakhs), other animals ($1\frac{1}{4}$ lakhs), and hides (1 lakh). The value of specie imported amounted in 1903-4 to $14\frac{1}{4}$ lakhs, and the total value of imports of all kinds was $23\frac{1}{4}$ lakhs. Of this aggregate only Rs. 13,000 worth came via Myothit, and the rest passed over the Namhkam route. The main exports to China, with their values in 1903–4, are as follows: Indian twist and yarn ($24\frac{1}{4}$ lakhs), raw cotton (3 lakhs), European piece-goods ($1\frac{1}{4}$ lakhs), specie ($2\frac{1}{4}$ lakhs), a total value of $34\frac{3}{4}$ lakhs, of which only Rs. 9,000 pertain to the Myothit route. The balance of trade is to some extent made up by smuggled opium.

Considerable trade is carried on with the Northern Shan States and with the Kachin tracts, as well as with China, the values of the principal imports and exports in 1903–4 being as follows: imports, ponies and mules (Rs. 17,000), rice (Rs. 31,000), gram and pulse (Rs. 35,000), hides (Rs. 53,000), specie (4 lakhs), total $5\frac{3}{4}$ lakhs: exports, salt

(Rs. 87,000), Indian twist and yarn (Rs. 1,21,000), European piece-goods (Rs. 74,000), total 5 lakhs.

Bhamo itself is only a place of transhipment; there are no merchants of any standing, and their agents merely see that goods pass from Mandalay and Rangoon to China and vice versa. The imports from China go down by the river steamers and large native boats, which bring up the goods for re-export.

The Irrawaddy is navigable by large steamers to the mouth of the Taping, 2 miles above Bhamo, and by smaller steamers in the cold season up through the District to Myitkyinā. Two weekly steamers ply weekly to Mandalay and other stations, and a daily steamer runs 70 miles to the railway terminus at Kathā. The Taping is navigable by country boats at all times, and in the rains by large launches up to Myothit, where the river debouches from the gorge. The Mole also is navigable by large boats up to near Nalong, five days' journey from Bhamo, but navigation is rendered difficult by snags and sharp bends of the stream. The Kaukkwe can be used by country boats as far as Myitkyinā District in the rains, and the Sinkan up to Sikaw, 20 miles from its mouth. The District is well provided with roads. East of the river four main tracks radiate from Bhamo town, the first via Myothit, where the Taping river is crossed by a bamboo bridge in the open season and by a ferry in the rains, to Nalong in the Upper Mole valley, close to the junction of Bhamo and Myitkyinā Districts with Chinese territory. The second, the main road to Tengyüeh (Momein), the principal Chinese frontier customs station, strikes eastwards across the plain to the foot of the hills, and thence along the south bank of the Taping river to the frontier near Kalihka (51 miles). The first 17½ miles are metalled; the remainder is a mule-track, graded so that it can be opened for carts in due course. The third main road is the Namhkam road, south-eastwards to the Northern Shan States. As far as Mansi (13 miles) it is opened for carts; thence to Panghkam (39 miles), close to the Northern Shan States border, it is a mule-track over the hills. It is freely used by caravans from the Northern Shan States and the neighbouring Chinese Shan States. The fourth road runs via Sikaw to Si-u on the Möngmit border. It is a cart-road as far south as Sikaw (37 miles); thence to Si-u (18 miles) along the valley of the Sinkan stream it is open for carts only in the dry season. Along the whole frontier from Nalong to Panghkam a mule-track has been constructed connecting the frontier posts, and crossing the Taping river between Nampaung and Kalongkha by an iron suspension bridge with masonry abutments, which was constructed during the open season of 1904. These roads are maintained mainly from Provincial funds. In addition, numerous inter-village tracks are kept up by the District fund, including cart-roads in the Shwegu subdivision, both east and

west of the Irrawaddy, and mule-tracks in the Kachin hills. During the rainy season, the smaller streams in the hills, and floods in the low country, frequently render all but the main banked roads impassable for traffic. The construction of a light railway from Bhamo to Tengyüeh is at present under consideration. Its estimated cost is about 176 lakhs, and it will practically follow the road now under construction along the Taping valley.

Administration.

For purposes of administration the District is divided into two subdivisions, BHAMO and SHWEGU, each conterminous with a single township. Under the two subdivisional officers are 215 village headmen. The hill areas of the two subdivisions are administered by civil officers in accordance with the provisions of the Kachin Hill Tribes Regulation, 1895. The civil officer in charge of the Bhamo subdivision hill tracts has his head-quarters at Sinlumkabā, 26 miles east of Bhamo. The subdivisional police officer, Shwegu, is civil officer for the Kachin hill tracts of that subdivision, with head-quarters at Shwegu. Bhamo is the head-quarters of the Bhamo Forest division and of the Bhamo military police battalion. The Public Works department is represented by an Executive Engineer in charge of the Bhamo division, which is conterminous with the District.

The two township officers are judges in their respective courts, and the *akunwun* at Bhamo is additional judge of the Bhamo township court. The Deputy-Commissioner, besides being District Magistrate and District Judge, has the powers of a Sessions court for the trial of crimes committed in the Kachin hill tracts, and the Commissioner confirms death sentences in such cases. The civil officers administer criminal justice according to the Kachin Hill Tribes Regulation, and decide all civil cases within their jurisdictions. There are two additional magistrates in Bhamo, the *akunwun* and the treasury officer. Crime is extremely light; violent crime is almost unknown, but excise and opium cases are fairly numerous. The Shan-Burmans, who inhabit the greater part of the District, are peculiarly law-abiding, and compare very favourably in this respect with the pure Burmans.

Under Burmese rule the main source of revenue was *thathameda*, supplemented by a tax on state rice lands and on fisheries. Tolls were levied on imports and various commodities, and on boats according to their capacity. At present the revenue is raised differently in the plains and in the Kachin hill tracts. In the latter, the civil officers personally collect the revenue while on tour with an escort in the open season. This revenue consists only of tribute, in the form of a house tax at Rs. 2–8–0 per house. In the plains the greater part of the revenue is made up of *thathameda*, the assessment varying from a maximum of Rs. 10 in the accessible parts of the District to Rs. 5 and

Rs. 2-8-0 in remoter areas. The District has never been settled, and only a fraction of the rice land has been surveyed, on which a uniform rate of Rs. 1-8-0 per acre is levied. On unsurveyed lands a tax on the out-turn is collected, its amount being regulated by the Deputy-Commissioner according to the market price of rice. The following table shows the revenue since 1890-1, in thousands of rupees:—

	1890-1.	1900-1.	1903-4.
Land revenue . .	12 *	20	27
Total revenue . .	1,91 *	1,39	1,53

* Including revenue of Myitkyinā.

Land revenue is a comparatively small item in Bhamo. *Thathameda* is the main source of revenue. It brought in Rs. 96,000 in 1900-1, and a little over a lakh in 1903-4 (including the tribute from the Kachin hill tracts).

BHAMO is the only municipality. The District fund is administered by the Deputy-Commissioner. Its income in 1903-4 amounted to Rs. 10,500, the chief object of expenditure being public works (Rs. 6,300).

Bhamo has been a military station since 1885. The garrison occupies Fort C, on the highest ground in the town. At present it consists of three companies of a British regiment, a battalion of native infantry, and a mountain battery. The frontier outposts are manned by the military police.

Besides the District Superintendent of police, two Assistant Superintendents are in charge of the subdivisions. The force consists of one inspector (at head-quarters), 5 head constables, 8 sergeants, and 180 constables, including 49 village police. There are 2 police stations and 12 outposts. Bhamo is the head-quarters of the Bhamo battalion of military police. Of this force, 768 (including all ranks) are stationed at Bhamo itself, in Fort A on the bank of the river. The remainder of the military police garrison, numbering 475 of all ranks, occupy five frontier outposts—Alawpum and Nampaung north of the Taping, and Warabum, Lwejebum, and Panghkam south of that river—as well as posts at Sinlumkabā and Shwegu. These outposts are in heliographic communication with each other and, directly or indirectly, with Bhamo, and are connected by a frontier road. There are five British officers, one of whom has his head-quarters at Sinlumkabā.

The District jail at Bhamo has accommodation for 97 prisoners, who find occupation in grinding wheat for the military police and in doing cane and bamboo work.

In 1901 the proportion of literate persons was returned at 22 per cent. in the case of males and 2½ per cent. in the case of females, or

12½ per cent. for both sexes together. The figures do not, however, include the population of the 'estimated' areas, the great majority of whom are unable to read and write. Bhamo possesses a number of schools belonging to missionary agencies. The American Baptist Kachin Mission has opened a school in Bhamo for boys and girls, teaching up to the eighth standard, and has ten other schools in the District. The same Agency's mission to Burmans and Shans has a school with primary and middle departments, and the Roman Catholics have started teaching in the Christian village of Mahlaing on the Taping. A Government Anglo-Chinese school at Bhamo has more than 30 scholars. In 1903–4 the District contained 5 advanced schools (private), 70 primary, and 73 elementary (private, and mostly monastic) schools, with a total attendance of 2,634 boys and 309 girls. The expenditure on education was Rs. 12,400, of which Rs. 10,300 was met from Provincial funds and Rs. 2,100 from fees.

The two civil hospitals have accommodation for 59 in-patients. In 1903 the number of cases treated was 16,506, including 950 in-patients, and 241 operations were performed. The total income was made up of Rs. 4,500 from Provincial funds, Rs. 3,600 from municipal funds, and Rs. 600 from subscriptions. About 4,817 patients attended the military police hospitals at Sinlumkabā, Warabum, Panghkam, and Lwejebum during the same year.

In 1903–4 the number of persons successfully vaccinated was 2,306, representing 29 per 1,000 of population. Vaccination is compulsory only within the limits of the Bhamo municipality.

[J. Anderson, *Report on Expedition to Western Yunnan, via Bhamo* (1871); E. B. Sladen, *Narrative of the Expedition to explore the Trade Routes to China via Bhamo* (1869).]

Bhamo Subdivision.—Eastern subdivision and township of Bhamo District, Upper Burma, lying between 23° 46′ and 24° 52′ N. and 97° 1′ and 97° 46′ E., with an area of 1,723 square miles. The population in 1901 was 57,572, of whom about 21,000 were Kachins, nearly 8,000 Burmans, and about 20,000 Shans or Shan-Chinese. There are 598 villages, including very small groups of huts in the Kachin tracts; and the head-quarters are at BHAMO TOWN (population, 10,734), while the civil officer in charge of the Kachin hill tracts has his head-quarters at Sinlumkabā, a station in the hills 26 miles east of Bhamo and 6,000 feet above the sea. The township is nearly all covered with forest, cultivation being confined to the ground near the rivers, and to the shifting *taungyas* on the hill slopes, which occupy two-thirds of the township, north and east. Approximately 23 square miles were cultivated in 1903–4, and the land revenue and *thathameda* amounted to Rs. 86,000.

Bhamo Town.—Head-quarters of the District of the same name in

Upper Burma, situated in 24° 15′ N. and 97° 15′ E., on the left bank of the Irrawaddy, 687 miles from the sea. The town extends along the edge of the river for nearly 4 miles, the ground behind it being so intersected with deep nullahs that the urban area cannot spread inland, and has now reached its limits. The Shan quarter lies to the south, stretching for 2½ miles from beyond the steamer *ghāt* in the south to the much higher ground on which the other part of the town is built. The houses are all ranged on two long roads parallel to the river, and behind is the *maidān*, a polo ground in the cold season and a fishery during the rains, when it is covered 15 to 20 feet deep by the Irrawaddy. The greater part of the Shan quarter is liable to inundation, the river rushing to flood the *maidān* over the narrow isthmus on which it is built. The higher ground extends along the river bank for about a mile and a half. On its southern edge, running east from the river, are built the hospital and the District, postal, and telegraph offices. Along the river is the quaint Chinese quarter, with its houses overhanging the swirling stream beneath. Behind, separated by a deep nullah, is the bazar and another nullah, along the eastern edge of which is the civil station. North of the Chinese quarter stretches the Burmese village, up to the military police barracks (or Fort A), which, with the jail, mark the end of the high ground, the bank farther north being low-lying and in places liable to floods. The cantonment is built behind the *maidān* at its north-east corner, and is connected with the station by a high embankment. The barracks are all within the walls of Fort C. On the China Road, running eastwards from the bazar, are the police station and the ugly white Shwezedi pagoda, where an annual festival is held at the close of the Buddhist Lent.

The malarious backwaters that gave Bhamo such an unenviable reputation for fever have of late been converted into lakes or drained altogether. The main streets are metalled, and the steamer *ghāt* at the southern end of the town is now connected with the bazar and civil station by the Viceroy's Road, skirting the western side of the *maidān*. A metalled track takes off from the China Road and, bending round towards the military police lines, makes a circular road about 5 miles in length.

Bhamo has long been the gate of the Chinese trade, and as early as the fifteenth century we find it on an old map made by Fra Mauro from the wanderings of Nicolò de' Conti. From the first it has been an important commercial centre, but its business has declined a great deal during the past century. Prior to annexation it was the head-quarters of a *wun* appointed by the Burmese government, and was then a stockaded town. It was occupied without opposition by the British in December, 1885. The population, including that of the cantonment, was 8,048 in 1891 and 10,734 in 1901; the latter total included

1,971 Musalmāns and 1,087 Hindus, about 2,000 Shans, and 3,700 Burmans and Shan-Burmans. The inhabitants are chiefly petty rice-traders, workers in silver or precious stones, and small shopkeepers.

Bhamo was constituted a municipality in 1888. During the ten years ending 1901 the income and expenditure of the municipal fund averaged about Rs. 25,000. In 1903-4 the income was Rs. 34,000, of which Rs 12,600 was derived from dues on markets and slaughter-houses, and Rs. 3,900 from house and land tax, and the expenditure was Rs. 33,000, the chief items being conservancy (Rs. 11,500), hospitals (Rs. 6,200), and lighting (Rs. 3,600). The cantonment fund had a revenue of Rs 6,200 in 1903-4, the chief source of income being grazing fees (Rs 2,500) The municipality supports the civil hospital, which has accommodation for 51 in patients The work of the civil hospital is supplemented by that of the dispensary belonging to the American Baptist Mission.

Bhāndak.—Village in the Warorā *tahsil* of Chānda District, Central Provinces, situated in 20° 7′ N and 79° 7′ E, 12 miles from Warorā station on the Chānda road. It has been suggested that Bhāndak was the capital of the old Hindu kingdom of Vākātaka or Berār, but the names are not connected, and no inscriptions of the Vākātaka rulers have been found here The numerous ruined temples and fragments of sculpture and squared stones show that it must at one time have been a great city The most famous temple at present is that of Badarī Nāg, or the 'snake temple,' the object of worship being a *nāg* or cobra, which is said to make its appearance on all public occasions The temple itself is modern and has been reconstructed from older materials, many old sculptures being built into the walls. To the east of the village near the main road is a tank containing an island, which is connected with the mainland by an old Hindu bridge constructed of massive columns in two rows, with heavy beams laid along their tops to form a roadway The bridge is 136 feet long and 7 feet broad About a mile and a half to the south west of Bhāndak, in the hill of Bijāsan, is a very curiously planned Buddhist cave A long gallery is driven straight into the hill to a distance of 71 feet, and at the end of it is a shrine containing a colossal Buddha seated on a bench. Two galleries lead off at right angles to the first, and each of these has also its shrine and statue From traces of inscriptions on the walls the date of the original excavations may be inferred to have been as early as the second or third century A.D. In Gaorāra, a mile and a half to the south of Bhāndak, are the remains of several temples, and caves and niches hollowed out in the rock for the reception of statues. The principal temple is called Jobnāsa's palace, and the two chief caves are called his big and little fowl houses.

Bhandāra District.—District in the Nāgpur Division of the Central

Provinces, lying between 20° 40′ and 21° 47′ N. and 79° 27′ and 80° 40′ E., in the eastern portion of the Nāgpur plain, with an area of 3,965 square miles. It is separated from Chhattīsgarh by the Sātpurā range on the north, and by a line of broken hill and forest country farther south. Through a narrow gap of plain between the hills on the north and south pass the Bengal-Nāgpur Railway and the great eastern road. Bhandāra is bounded on the north by Bālāghāt and Seonī Districts; on the west by Nāgpur; on the south by Chānda: and on the east by the Feudatory States of Chhuīkhadān, Khairāgarh, and Nāndgaon. The surface is generally open and level, being broken only in a few places by isolated ranges of hills. The lowest and most northerly of these is the Ambāgarh range, an outlier of the Sātpurās, which enters from the west and, trending in a north-easterly direction, cuts off the valley of the Bāwanthari river from the rest of the District. Soon after entering Bhandāra the ridge is crowned by the fortress of Ambāgarh. In the centre, running from the east of Bhandāra town to the railway near Gondiā, is the Gaikhurī range, a cluster of low peaks surrounded by irregular forest country. The points of Lendejharī (1,499 feet) and Jāmri (1,712 feet) are the highest. Just west of Bhandāra the Ballāhi range, consisting of a few sandstone hills capped with granite and overhanging the eastern road, forms a prominent feature in the landscape. Lastly, in the south-east lie the Nawegaon or Partābgarh hills, the highest part of the District. Among them, under a seven-peaked mass, locally known as the 'hill of the seven sisters,' is the Nawegaon lake, and on an outlying bluff of this cluster stood the old fortress of Partābgarh (1,842 feet). The peak of Nishāni is 2,314 feet high. In the extreme south-west near Paunī there is an isolated clump of hills, and in the north-east the Sātpurā range takes in the corner of the District formed by the Sālekasā and Darekasā *zamīndāris*. The main river is the Waingangā, and practically all the others are its tributaries. The Waingangā enters the District on the north-east, and flows diagonally across until it passes within a mile of Bhandāra town on the south-west, its valley lying between the Ambāgarh and Gaikhurī ranges. After this it flows to the south, forming for a short distance the boundary between Bhandāra and Nāgpur, and then turning again south-east cuts off the small and fertile strip of Paunī from the rest of the District. Its width in Bhandāra is generally 500 yards, but opposite Paunī it broadens to half a mile. During the open season it consists only of a small and sluggish stream everywhere fordable, and containing at intervals deep pools full of fine fish. The principal affluent of the Waingangā is the Bāgh, which rises in the Chīchgarh *zamīndāri*, south-east of the Partābgarh range, and flows almost due north for a course of 70 miles, forming for some distance the boundary between Bhandāra and Bālāghāt. It joins the

Physical aspects.

Waingangā near Benī, being crossed by the new Sātpurā Railway just before its junction. Another tributary on the left bank is the Chūlband, which rises in the Gaikhurī range and flows south, crossing the great eastern road at Saongī, where it is spanned by a large bridge. The Pāngoli rises near Tumsar, and joins the Bāgh near Kāmtha on the border of the District. On the right bank the tributaries are the Chandan, which flows past Wārāseonī and Rāmpailī and meets the Waingangā near Saonrī, the Bāwanthari flowing down from Seonī and joining it at Mowār, and the Sūr coming east from Nāgpur to a junction not far from Bhandāra town. The valleys of the Waingangā and Bāgh have been called the 'lake region' of Nāgpur, from the number of large artificial tanks constructed for irrigation which form a distinctive feature of the country. The most important are those of Nawegaon, with an area of 5 square miles, and Seonī, with a circumference of more than 7 miles, while smaller tanks are counted by thousands. These large tanks have been constructed by members of the Kohlī caste, and, though built without technical engineering knowledge, form an enduring monument to the natural ability and industry of these enterprising cultivators. The larger tanks are irregular lakes, their banks formed by rugged hills, covered with low forest that fringes the waters, while dikes connecting the projecting spurs from the hills are thrown athwart the hollows. The Sākoli *tahsīl*, or southern portion of the District, consists largely of hill and forest. Elsewhere the country is for the most part open and closely cultivated, and the expanses of rice and wheat-fields thickly studded with fruit-bearing trees and broken by low, flat-topped hills present a pleasant and prosperous appearance.

The main formation in the valley of the Waingangā consists of basalt and other igneous rocks, while in the eastern and southern part of the District it changes to metamorphic sandstone. Beds of laterite are common in all parts. In the isolated ridges and hills round Bhandāra town a close-grained sandstone is found, which makes a good building stone.

The forests generally cover and surround the hill ranges; but beyond the Partābgarh range a broad belt of jungle extends from Owāra and Amgaon in the north, round the eastern and southern border of the District, to the Chūlband. Teak is found on the higher hills, and bamboos abound. The other timber trees are *sāj* (*Terminalia tomentosa*), *lendiā* (*Lagerstroemia parviflora*), and *bījāsāl* or *beulā* (*Pterocarpus Marsupium*). Much of the *zamīndāri* forest consists of *salai* (*Boswellia serrata*), a tree of very little value. *Mahuā* (*Bassia latifolia*) is abundant in the open country, and the usual fruit-bearing and sacred trees surround the villages. The grasses called *kusal* and *ghonār* are principally used for thatching, and *musyāl* for fodder. *Kāns* (*Saccharum spontaneum*) sometimes invades the wheat-fields.

Bison occur in the Gaikhurī and Partābgarh ranges, and instances have been known of wild buffalo entering the District from the south. Tigers and leopards are found in most of the forests. Snipe and duck are fairly plentiful, and large fish are obtained in the deeper reaches of the Waingangā and in the Nawegaon lake.

The climate is slightly cooler than that of Nāgpur, and the highest temperature in the hot season is usually not more than 112°. The nights, if the sky is clear, are nearly always cool. In winter the nights are cold, though it never actually freezes. Malarial fever is prevalent from August to the end of the year, especially in the south and east. Severe epidemics of cholera usually follow years of scanty rainfall.

The annual rainfall averages 55 inches; the Tirorā *tahsīl*, situated in the open country to the north, gets a smaller rainfall than Bhandāra and suffers most in years of drought.

History.

Nothing is known of the early history of the District, except for a vague tradition that at one period it was held by Gaolī kings. In the seventeenth century the open country in the north was included in the territories of the Deogarh Gond dynasty, and the fort at Ambāgarh seems to have been built by the Pathān governor who held the Dongartāl estate in Seonī under the Gond Rājā, Bakht Buland. The eastern and southern portions of the District were at this time covered with continuous forest; but the fact that some of the *zamīndārs* formerly held deeds granted by the Garhā-Mandlā dynasty shows that these territories were nominally under their jurisdiction, while the present *zamīndār* of Chīchgarh holds a patent from the Chānda kings. In 1743 Bhandāra, with the rest of the Deogarh territories, became part of the Marāthā kingdom of Nāgpur, but was at first governed by *kamaishdārs* or subordinate revenue officials who were controlled from Nāgpur, and whose charges, ten in number, were assigned as apanages of different officers of the court. The present town of Bhandāra was constituted the District head-quarters in 1820, when a European officer was appointed as Superintendent under the temporary administration of Sir Richard Jenkins. Soon after the Marāthā accession, a Kunbī *pātel*, who had rendered some services to Chimnāji Bhonsla on his expedition to Cuttack, received as a reward a grant of authority over the eastern part of the District, with instructions to clear the forest and bring it under cultivation. This grant led to the rise of the *zamīndāri* family of Kāmtha, which by 1818 had extended its jurisdiction over 1,000 square miles of territory, comprising about fourteen of what are now the *zamīndāri* estates of Bhandāra and Bālāghāt, the ancestors of the present *zamīndārs* having held their estates in subordination to the Kāmtha house. In 1818 Chimnā Pātel, the *zamīndār*, rose in support of Appa Sāhib, captured the Marāthā governor of Lānji, and garrisoned a number

of the existing forts with his retainers. A small expedition was dispatched against him from Nāgpur under Captain Gordon, which, after a successful engagement with 400 of the *zamīndār's* levies at the village of Nowargaon, stormed Kāmtha and took Chimnā Pātel prisoner. The Kāmtha territories were made over to the Lodhī *zamīndār* of Warad, who had afforded assistance to the British and whose descendants still hold the *zamīndāri*. Some years afterwards the *zamīndāri* of Kirnāpur, now in Bālāghāt, was conferred on the deposed Kāmtha family. The subsequent history of Bhandāra has been the same as that of the Nāgpur kingdom, and on the death of Raghujī III, the last Rājā, in 1853, it became British territory. During the Mutiny the peace of the District was undisturbed. In 1867 the Lānji tract and several of the *zamīndāris* were taken from Bhandāra to form part of the new Bālāghāt District.

An old cromlech and stone pillars are to be seen at Tillotā Khairī, and some remains of massive stone buildings at Padmāpur near Amgaon. Old temples, most of them of the kind called Hemādpanti, built without mortar, are found at Adyāl, Chakahetī, Korambī, and Pinglai, a suburb of Bhandāra town. There are a number of forts, the principal being Ambāgarh, constructed by the Muhammadan governor of Seonī; Chandpur and Bhandāra, traditionally ascribed to the Gaolīs; Sangarhī and Partābgarh, built by the Gonds; and Paunī, constructed by the Marāthās. The fort of Ambāgarh was used as a prison by the Marāthās, and it is said that criminals were sent there to be poisoned by being compelled to drink the stagnant water of the inner well. This fort and also that of Paunī were held against the British in Appa Sāhib's rebellion of 1818, and were carried by storm.

Population.

The population of the District at the last three enumerations was as follows: (1881) 683,779, (1891) 742,850, and (1901) 663,062. Between 1881 and 1891 the increase was somewhat smaller than the Provincial average, partly owing to emigration to Nāgpur and Berār. During the last decade, there was some emigration to Wardhā and Berār, and the District suffered from partial failures of crops in 1895 and 1896, being very severely affected by famine in both 1897 and 1900. The density of population is 67 persons per square mile. Under favourable circumstances the District could probably support with ease a density of more than 200. There are three towns—BHANDĀRA, PAUNĪ, and TUMSAR—and 1,635 inhabited villages. Villages in Bhandāra are generally of a comparatively large size, the proportion with 500 inhabitants or more being the highest in the Province. The principal statistics of population in 1901 are shown in the table on the next page.

The statistics of language show that 77½ per cent. of the population speak Marāthī, and 13½ per cent. Hindī and Urdū; of the remainder,

56,000 persons, or 79 per cent. of the total number of Gonds, speak Gondī. According to religion, about 88 per cent. of the population are Hindus, and 10 per cent. Animists. Muhammadans number nearly 13,000, of whom 3,000 live in towns. Until recently there were a considerable number of Muhammadan cotton-cleaners, but with the introduction of mill-spun thread this industry has declined.

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Bhandāra . .	1,088	3	507	204,153	187	-11.0	6,254
Tirorā . .	1,328	...	571	291,514	220	-12.9	6,256
Sākoli . .	1,549	...	557	167,395	108	- 6.5	4,236
District total	3,965	3	1,635	663,062	167	-10.7	16,746

The principal castes of landholders are Marāthā Brāhmans (6,000), who possess 340 out of 1,917 revenue villages, Ponwārs (63,000) with nearly 300, Kunbīs (79,000) with about 200, Lodhīs (18,000) with 166, and Kohlīs (11,000) with 136 villages. The Marāthā Brāhmans obtained their villages under the Bhonsla dynasty, when they were employed as revenue officials, and either assumed the management of villages or made them over to their relations. The three great cultivating castes are Ponwārs, Kunbīs, and Kohlīs, the Ponwārs being traditionally skilful in growing rice, Kunbīs with spring crops, and Kohlīs with sugar-cane. The skill of the Ponwārs at irrigation is proverbial, and it is said of them that they can cause water to flow up a hill. The Kunbīs are dull and heavy, with no thought beyond their wheat and their bullocks. The Kohlīs live chiefly in the Chandpur tract of Bhandāra and the Sākoli *tahsīl*. They are not so prosperous as they formerly were, when Kohlī *pātels* built the great tanks already mentioned. The Lodhīs (18,000) are not important numerically, but they hold some fine estates, notably the *zamīndāri* of Kāmtha with an income of over a lakh of rupees. Gonds number 70,000, or about 10½ per cent. of the population, and Halbās 17,000. Several of the *zamīndārs* belong to each of these castes, the Gonds being generally seriously involved, and the Halbās somewhat less so, though they are not often prosperous. The Gonds suffered severely in the famines. The menial labouring and weaving caste of Mehrās is represented by 118,000 persons, or nearly 18 per cent. of the population. About 72 per cent. of the whole population are shown as dependent on agriculture.

Christians number 319, including 286 natives, of whom the majority belong to the United Free Church of Scotland Mission, which has

been established in Bhandāra since 1882, and maintains a hospital, an orphanage, and schools for boys and girls. A branch of the American Pentecostal Baptist Mission has recently been opened at Gondiā.

Agriculture.

About 53 per cent. of the soil of the District is that called *morand*, or black and nearly black soil mixed with limestone pebbles or sand. The best black soil or *kanhār* occupies 4½ per cent. and is alluvial, being found in the tracts bordering on the Waingangā, especially round Paunī, where the Waingangā takes a sudden turn, and the deposit of detritus has increased. Farther east, yellow sandy soil, which gives a large return to irrigation, generally predominates, covering 31 per cent. of the whole cultivated area. The quantity of inferior land is therefore comparatively small.

Of the total area, 1,479 square miles, or 37 per cent., are comprised in the 28 *zamīndāri* estates, to which it has been held that the custom of primogeniture does not apply, while 95 square miles are held wholly or partially free of revenue by members of the Bhonsla family, and 3,000 acres have been sold outright under the Waste Land Rules. The balance is held on the ordinary *mālguzāri* tenure. The chief statistics of cultivation in 1903-4 are as follows, areas being in square miles:—

Tahsīl.	Total.	Cultivated	Irrigated	Cultivable waste	Forests.
Bhandāra	1,088	483	35	298	204
Tirorā	1,328	657	40	475	88
Sākoli	1,549	356	53	749	240
Total	3,965	1,496	128	1,522	532

A large quantity of waste land therefore still remains, and as very little inferior soil has been brought under the plough, it would appear that there must be considerable scope for extension of cultivation. Rice occupies 628 square miles, *jowār* 158, wheat 135, gram 70, linseed 116, and pulses 254. In recent years wheat has to some extent been supplanted by *jowār*, and while the area under rice has considerably fallen off, this has only to a small extent been counterbalanced by an increase in *kodon*. About four-fifths of all the rice grown is transplanted, and the balance is sown broadcast. Wheat is grown principally in the Paunī, Tumsar, and Rāmpailī tracts, and small embankments are often constructed for wheat-fields, especially when rice is grown as a rotation crop with wheat. *Jowār* is frequently sown as a spring crop, as the rains are too heavy to allow it to succeed as an autumn crop. Linseed, gram, and the pulse *tiurā* (*Lathyrus sativus*) are grown as second crops in rice-fields. Sugarcane was formerly an important crop, but the area under it has

decreased in recent years, and is now only about 1,500 acres, or less than a third of the former total. Ginger, oranges, and plantains are grown in the villages of Jām and Andhārgaon, and sent to Nāgpur.

The practice of growing second crops in rice-fields and of irrigating rice has arisen since 1864. In a favourable year second crops are grown on as large an area as 341 square miles. A variety of sugar-cane called *kathai*, which gives only half the usual out-turn of sugar but is easier to cultivate and less liable to damage from wild animals, has been generally adopted in preference to the superior canes. During the decade ending 1904 more than 1½ lakhs was advanced under the Land Improvement Loans Act, principally for the construction of irrigation tanks, and nearly 6 lakhs under the Agriculturists' Loans Act, of which 3 lakhs was given out during the scarcity of 1902-3. A considerable proportion of this latter sum was expended in agricultural improvements.

No good cattle are bred in the District, except in the small forest tract to the north of the Ambāgarh range where there are professional breeders of the Golar caste. The herds from here are taken to Baihar for grazing during six months of the year. Elsewhere no care is exercised in breeding, and the type produced is poor. Bullocks are imported from the Kānker and Bastar States and from the Sātpurā Districts of Chhindwāra and Seonī for rice cultivation, and from Berār in the spring-crop area. Buffaloes are used for rice cultivation and also for draught. They are not largely bred locally, the young bulls being imported from the northern Districts. They are slightly more expensive than bullocks, and are usually kept in combination with them, and are used for the heavy work of transplantation and harvesting. There are very few sheep, but numbers of goats are bred by ordinary agriculturists both for food and for sacrifice.

The District of Bhandāra has a larger irrigated area than any other in the Province, as much as 370 square miles receiving an artificial supply of water in a normal year. This represents nearly a quarter of the net area under crop, and nearly half of that under rice, which, with the exception of a few thousand acres of sugar-cane and vegetables, is the only crop to which irrigation is applied. In 1903-4 the irrigated area was 128 square miles. The water for irrigation is accumulated in village tanks of the ordinary kind, and either percolates through the embankment or is drawn off to the fields by channels constructed of earth, from outlets cut in the centre or side of the embankment. A few of the large reservoirs, such as Nawegaon, Seonī, and Siregaon, have rough masonry sluices. A system is also practised of constructing small embankments to hold up water temporarily during the monsoon months; in September and October these are cut, and the water taken on to the rice-fields, while wheat is sown in the bed of the tank. Irrigation is at present almost entirely dependent on a sufficient supply of

rain to fill the tanks at some period during the monsoon; and in 1899, when there was a complete failure of the rainfall, only about 4 per cent. of the normal cropped area could be supplied with water. The configuration of the country, and the hill ranges traversing the District, afford a number of favourable sites for large storage reservoirs similar to those already constructed by the people, and several projects of this nature have been prepared by the Irrigation department. The construction of the Khairbandā tank to protect 4,000 acres is nearly completed.

Government forests cover 532 square miles, of which all but 8 are 'reserved' forests. The chief areas are on the Ambāgarh, Gaikhurī, and Partābgarh ranges, and there is a small block to the west of Paunī. The higher levels of the Gaikhurī and Partābgarh hills contain a certain amount of teak. Elsewhere the ordinary mixed species are found. Bamboos are abundant. Most of the revenue comes from timber and bamboos, and the rest from the usual minor forest produce. The total value of forest produce sold in 1903-4 was Rs. 45,000. Besides the Government Reserves, the District contains 946 square miles of tree forest, principally in the *zamīndāris*. Some teak forest is found in Darekasā and Sālekasā.

The manganese ores in the District are now being worked by a European firm, the principal deposits being near Tumsar. About 150 labourers are employed, and the output in 1904 was 8,558 tons. Deposits of iron ore of a superior quality exist in several villages in the Tirorā *tahsīl*, and are worked to a small extent by native artificers. A little gold is obtained by washing in the Sonjharī Dudhī river.

Trade and communications.

The weaving of silk-bordered cloths is a substantial industry in Bhandāra, and has not yet been seriously affected by the competition of the mills. The principal centres are Bhandāra town, Pauni, Mohāri, and Andhārgaon, and the total number of persons employed is about 6,000. Fine cotton cloths are woven with coloured silk borders, usually red, and the weavers in Pauni use counts as fine as 80's. The silk thread comes from Assam through Nāgpur ready dyed. Ordinary country cotton cloth is also produced in considerable quantities by Mehrās, who live in large numbers in Tumsar and the surrounding villages. Cotton cloths are dyed with imported materials in a number of villages, about 500 persons being employed in this industry at Benī. At Bhandāra all kinds of brass vessels are made. Stone jars are turned out at Kanerī and cart-wheels at Tumsar. Soft grass matting for bedding is manufactured from a grass called *sukhwāsa*, and bamboo baskets and matting are made in a number of villages.

Rice is the staple export, being sent to Bombay for the foreign trade, and also to Nāgpur and Berār. Wheat, gram, the pulse *urad*, and oil-

seeds are also exported, these being generally taken by cart from Paunī to Nāgpur. Of the forest produce, teak and *beulā* (*Pterocarpus Marsupium*), timber and bamboos, and *mahuā*, myrabolams, hides, and wax are generally exported; and various articles of local manufacture, as brass-ware, silk-bordered cloths, and stone jars, are sent to neighbouring Districts. In the last few years there have been considerable exports of manganese. Cotton piece-goods are imported from the Nāgpur and Bombay mills, and English cloth from both Bombay and Calcutta. Yarn is obtained from the Nāgpur and Hinganghāt mills. Kerosene oil is brought from Bombay, and is now solely used for lighting. Sea-salt also comes from Bombay. Mauritius sugar is principally used. *Gur* or unrefined sugar is both produced locally and imported from Bombay and the United Provinces. A certain amount of *jowār* and the pulse *arhar* is brought into the District for consumption from Berār and Nāgpur. The principal trading stations are Gondiā and Tumsar, and after them Tirorā and Amgaon. Tumsar is the centre for the part of the District north-west of the Waingangā, and for the adjoining tracts of Seonī and Bālāghāt. South of the Waingangā the trade of the Tirorā *tahsīl* on both sides of the railway goes to Tirorā, Gondiā, or Amgaon according to their relative proximity.

The Bengal-Nāgpur Railway passes through the northern portion of the District, with a length of 78 miles and ten stations, including Bhandāra, within its borders. The Sātpurā narrow-gauge extension starts north from Gondiā junction, and has a length of 11 miles and one station in the District. The most important roads are the great eastern road running through the south of the District, and the roads from Tumsar to Rāmpailī and Katangī, from Gondiā to Bālāghāt, and from Tirorā to Khairlānji. The length of metalled roads is 136 miles, and of unmetalled roads 259 miles, all of which, except 21 miles of the latter class maintained by the District council, are in charge of the Public Works department, the expenditure on upkeep being Rs. 58,000. There are avenues of trees on 26 miles.

Famine.

The years 1822, 1832, and 1869 are remembered as having been marked by famine from failure of rainfall. After 1869, the year of the Bundelkhand famine, the District prospered until the cycle of bad seasons commencing in 1894. Two years of poor crops were followed by a harvest of less than half the normal in 1895-6, and of one-third of the normal in 1896-7. Severe distress occurred in the latter year, the numbers on relief rising to 43,000 persons, or 6 per cent. of the population, in June, 1897, and the total expenditure being 10 lakhs. Again in 1899-1900 both the rice and wheat harvests were complete failures and famine ensued. About 140,000 persons, or nearly 19 per cent. of the population, were on relief in July, 1900, and the total expenditure was 26 lakhs. In both

these famines, besides improvements to communications, large numbers of tanks were constructed and repaired. In 1902 there was again a very poor rice crop and some local relief was given, tank works also being undertaken by the Irrigation department.

Administration.

The Deputy-Commissioner usually has a staff of three Assistant or Extra-Assistant Commissioners. For administrative purposes the District is divided into three *tahsīls*, each of which has a *tahsīldār* and a *naib-tahsīldār*. The Forest officer is generally a member of the Provincial service. The executive Engineer of the Bhandāra Public Works division, comprising Bhandāra and Bālāghāt Districts, is stationed at Bhandāra town.

The civil judicial staff consists of a District and a Subordinate Judge, and a Munsif at each *tahsīl*. The Divisional and Sessions Judge of the Nāgpur Division has jurisdiction in Bhandāra. There are benches of honorary magistrates at Bhandāra town, Rāmpailī, and Amgaon. Suits brought for the use of water for irrigation are a noticeable feature of the civil litigation. Heinous crimes are somewhat numerous, murders committed with an axe being a comparatively common offence. Cattle-thefts also are frequent.

Owing to large changes in the area of the District, the old figures of the revenue demand cannot usefully be compared with the present ones. Under Marāthā administration short-term settlements were the rule. The farm of a certain area was given to an official called a *māmlatdār*, generally a court favourite, who made himself responsible for the revenue. Each village had a *pātel* or headman, who acted as its representative and engaged for the revenue demand, which rose and fell according to the circumstances of the year. The demand was distributed over the fields of the village, each of which had a number representing its proportionate value. The *pātel* had no proprietary right, but his office was generally hereditary, descending not necessarily o the eldest son, but to the most capable member of the family. The enants also had no legal status, but were seldom ejected so long as hey paid their rents, more especially as the land available was in xcess of the number of cultivators to till it. The result of the system as, however, that the *māmlatdārs*, who were usually Marāthā Brāhians, managed to get a large number of villages into their own hands id those of their relations; and when proprietary rights were conferred ' the British Government, they thus became hereditary landowners. ter the acquisition of the District in 1853, short-term settlements re continued for a few years. Preparations for the first regular vey were commenced in 1858, and a thirty years' settlement was npleted in 1867, the demand then fixed being 4·57 lakhs on the a now constituting Bhandāra. During the currency of this settlent the District prospered, the price of agricultural produce rose

greatly on the construction of the railway, and cultivation expanded. The District was resettled in the years 1894-9, and the revenue was raised to 6·04 lakhs, being equivalent to an increase of 38 per cent. in the *khālsa* and 69 per cent. in the *zamīndāri* estates. The average revenue incidence per cultivated acre is R. 0-10-11 (maximum Rs. 1-3-1, minimum R. 0-5-4), while the corresponding rental incidence is R. 0-15-4 (maximum Rs. 1-3-9, minimum R. 0-5-5).

The collections of land and total revenue in recent years are shown below, in thousands of rupees:—

	1880-1	1890-1	1900-1.	1903-4
Land revenue . .	4,02	4,08	2,77	5,66
Total revenue . .	7,59	8,41	5,57	8,87

The management of local affairs, outside municipal areas, is entrusted to a District council and three local boards, each of the latter having jurisdiction over one *tahsīl*. The income of the District council in 1903-4 was Rs. 61,000, while the expenditure on education was Rs. 24,000 and on public works Rs. 17,000. BHANDĀRA, TUMSAR, and PAUNĪ are municipalities.

The force under the District Superintendent of police consists of 352 officers and men, including 3 mounted constables, besides 2,116 village watchmen for 1,638 inhabited villages. There is a District jail with accommodation for 126 prisoners, including 11 females. The daily average number of prisoners in 1904 was 70.

In respect of education Bhandāra is neither particularly advanced nor backward, 2·5 per cent. of the population (5·2 males and 0·1 females) being able to read and write. Statistics of the number of pupils under instruction are as follows: (1880-1) 3,899, (1890-1) 7,630, (1900-1) 7,682, and (1903-4) 8,226, including 275 girls. The schools comprise 2 English middle schools at Bhandāra, with 5 vernacular middle schools and 129 primary schools, besides 2 private schools. One of the Bhandāra English schools is managed by the Free Church Mission. Two high school classes have been opened at the expense of a private resident in the other English school, but have not yet been recognized by the Allahābād University. There are six girls' schools—three in Bhandāra, and one each at Paunī, Sanīchari, and Tumsar. A separate school for low-caste Dher boys is maintained at Paunī. The expenditure on education in 1903-4 was Rs. 46,000, the income from fees being Rs. 4,500.

The District has 8 dispensaries, with accommodation for 59 in-patients. In 1904 the number of cases treated was 93,106, of whom 323 were in-patients, and 2,111 operations were performed. The expenditure

was Rs. 12,000, of which the greater part was provided from Provincial and Local funds.

Vaccination is compulsory only in the municipalities of Bhandāra, Tumsar, and Paunī. The proportion of successful vaccinations in 1903-4 was 45 per 1,000 of the population, being above the Provincial average.

[A. B. Napier, *Settlement Report* (1902). A District Gazetteer is being prepared.]

Bhandāra Tahsīl.—Western *tahsīl* of the District of the same name, Central Provinces, lying between 20° 40′ and 21° 43′ N. and 79° 27′ and 79° 55′ E., with an area of 1,088 square miles. The population in 1901 was 204,153, compared with 229,287 in 1891. The density is 187 persons per square mile. The *tahsīl* contains three towns—BHANDĀRA (population, 14,023), the District and *tahsīl* head-quarters, PAUNĪ (9,366), and TUMSAR (8,116)—and 507 inhabited villages. Excluding 204 square miles of Government forest, 63 per cent. of the available area is occupied for cultivation. The demand for land revenue in 1903-4 was Rs. 2,09,000, and for cesses Rs. 20,000. The *tahsīl* occupies a narrow strip of land along the west of the District, consisting mainly of open level country bordering the Waingangā, a considerable area being covered with fertile black soil. The cultivated area in 1903-4 was 483 square miles, of which 35 were irrigated.

Bhandāra Town.—Head-quarters of the District and *tahsīl* of the same name, Central Provinces, situated in 21° 10′ N. and 79° 40′ E., on the Waingangā river, 7 miles from a station on the Bengal-Nāgpur Railway. Population (1901), 14,023. The town contains an old fort said to have been built by the Gaolīs, which is now used as a jail. Bhandāra was constituted a municipality in 1867. The municipal receipts during the decade ending 1901 averaged Rs. 15,000. By 1903-4 the income had more than doubled and amounted to Rs. 35,000, the chief sources being octroi and water rate. The water-supply is obtained from the Waingangā. Three filtration wells have been constructed in the bed of the river, and water is raised from them to a service reservoir near the jail. The works were opened in 1900, the cost of the scheme being 1·84 lakhs and the annual maintenance charges about Rs. 6,000. The principal industry of Bhandāra is brass-working, and its name is said to be derived from *bhāna*, 'a brass dish.' Cotton cloth is also woven, but the trade of the place is not considerable. The educational institutions comprise a private high school supported by contributions from the residents, an English middle school, and several other boys' and girls' schools. Three dispensaries are maintained, including mission and police hospitals. The United Free Church of Scotland established a mission station here in 1882, and now supports an orphanage, a dispensary, and several schools.

Bhandāria.—Petty State in KĀTHIĀWĀR, Bombay.

Bhānder.—Head-quarters of a *pargana* in the Bhind district of Gwalior State, Central India, situated in 25° 44′ N. and 78° 45′ E. Population (1901), 5,133. The town is picturesquely placed between the Pahūj river and a lake formed by damming one of its tributaries. The site is said to be an old one, the ancient city having been swallowed up in an earthquake. The remains of a few old temples stand on a neighbouring hill. In the fifteenth century the town was included in the State of Orchhā, but in the eighteenth century it fell to Sindhia. After the Mutiny in 1857 it remained a British possession until 1886, when it was restored to Sindhia in part exchange for Jhānsi. A considerable trade in grain, spun and raw cotton, and country cloth is carried on. A State post office, a dispensary, schools for boys and girls, and an inspection bungalow are situated in the town.

Bhānpura.—Head-quarters of a *naib-sūbah* in the Rāmpura-Bhānpura district of Indore State, Central India, situated in 24° 31′ N. and 75° 45′ E., 1,344 feet above sea-level, below the arm of the Vindhyan range which strikes east from Chitor. Population (1901), 4,639. The foundation is ascribed to one Bhāna, a Bhīl. In the fifteenth century it passed to the Chandrāwats of Rāmpura. The town was long held by Udaipur, passing from that State to Jaipur, and finally, in the eighteenth century, to Malhār Rao Holkar I. Bhānpura was one of Jaswant Rao Holkar's favourite places of residence. During the period of his insanity, he was removed to Garot, as it was supposed that his madness was caused or augmented by the evil influence of a local demon, but he was taken back and died at Bhānpura in October, 1811. His cenotaph stands near the town, a substantial building of no architectural merit, surrounded by a castellated wall. In the town are a palace containing a marble statue of Jaswant Rao, and an unfinished fort commenced by the same chief, and also the offices of the *naib-sūbah*, a school, a jail, a dispensary, and an inspection bungalow. In former days iron smelting was carried on to a considerable extent at Navālī village, 10 miles north-east of the town. Jaswant Rao took advantage of this to establish a gun foundry at Bhānpura. Oranges grown in Jaswant Rao's garden are well-known in Mālwā. A municipality was constituted in 1905.

Bharamurio.—Hill in the Jashpur State, Central Provinces, situated in 22° 55′ N. and 83° 32′ E., and rising to a height of 3,390 feet above sea-level.

Bharatpur State.—State in the east of Rājputāna, lying between 26° 43′ and 27° 50′ N. and 76° 53′ and 77° 46′ E., with an area of about 1,982 square miles. It is bounded on the north by the Gurgaon District of the Punjab; on the west by Alwar; on the south-west by Jaipur; on the south by Jaipur, Karauli, and Dholpur; and on

the east by the Agra and Muttra Districts of the United Provinces. In shape Bharatpur is an irregular quadrilateral, narrowing from south to north, with spurs projecting into Alwar, Dholpur, and Agra. The central *tahsīls* are level, while the northern are to some extent, and the southern considerably, diversified by hills. The general aspect is that of an immense alluvial plain, fairly well wooded and cultivated, with detached hills in the north, a hilly and broken district (called the *Dāng*) in the south, and low narrow ranges on parts of the western and north-eastern frontiers. The highest hill in the State is in the west near Alīpur, 1,357 feet above the sea. The principal rivers are the BĀNGANGĀ or Utangan, the Gambhīr, Kākand, and Rūparel; they usually cease to flow about two months after the rainy season is over. The Bāngangā enters the State on the west and flows for about 55 miles due east to the Agra border. Its floods were formerly, owing to the neglect of the old irrigation works by Mahārājā Jaswant Singh, the cause of widespread ruin and agricultural depression not only along the course of the stream in Bharatpur, but also farther east in Agra; and the remonstrances of the United Provinces Government led to the appointment in 1895 of an Executive Engineer with the primary object of controlling them. Since then there have been no further complaints of damage in Agra, chiefly because the irrigation works undertaken for the proper distribution of the floods have caused them to be freely utilized in Bharatpur, and have converted them from a curse into a blessing. The Gambhīr enters the State at the south-western corner, and flows for about 35 miles, first east and next north-east, to Kurka, where it joins the Bāngangā. The Kākand is, or rather was, the chief affluent of the Gambhīr; it is now most effectively dammed by the great Bareta *band*. The Rūparel comes from the Thāna Ghāzi hills in Alwar, where it is sometimes called the Laswāri, from the site of the famous battle-field of that name on its banks, and on entering Bharatpur near Gopālgarh is immediately held up by the Sīkri *band*.

Physical aspects.

Almost the whole of the northern portion of the State is covered with alluvium, from which rise a few isolated hills of schist and quartzite belonging to the Arāvalli and Delhi systems respectively. The quartzites are well exposed in the Bayānā hills in the south, where they have been divided into five groups: namely, Wer, Damdama, Bayānā, Bādalgarh, and Nithāhar. To the south-east, sandstones of Upper Vindhyan age are faulted down against the quartzites, and form horizontal plateaux overlooking the alluvium of the Chambal river.

Besides the usual small game, wild hog, *nīlgai* (*Boselaphus tragocamelus*), and occasionally wolves are found in the forest preserves

(*ghannas*), and tigers and leopards in the Bayānā and Wer hills. The so-called wild cattle, which used to be notorious for their ravages on the crops, have almost all been impounded, and a good many of them have been tamed, trained, and sold. Wild duck are extraordinarily plentiful in the cold season.

The climate is on the whole dry and fairly healthy, but there is a good deal of malarial fever and rheumatism during the rainy months, owing to the large area of land under water. In the hot months a strong west wind blows, often night and day, and the thermometer stands very high. The mean temperature at the capital is about 81°; in 1904 the maximum was 115° in May and the minimum 44° in December.

The annual rainfall for the whole State averages about 24 inches, of which 21 inches are received in July, August, and September. Speaking generally, the eastern *tahsīls* have a greater rainfall than the western. The annual fall at the capital averages between 26 and 27 inches. The year of heaviest rainfall was 1873, when nearly 45 inches were registered at the capital, while in 1896, at Bayānā, only about 8 inches fell. In July, 1873, the rainfall was excessive (nearly 19 inches in the month). The canals and rivers overflowed their banks and inundated the country for miles round. Villages are said to have been literally swept away by the floods, and the capital itself was saved with great difficulty. In August and September, 1884, more than 25 inches of rain fell; large tracts were submerged for weeks, and the *bands* of tanks and public roads were breached all over the territory. Again, in August, 1885, the Bānganga rose in high flood and the Ajan *band* burst in eighteen different places. About 400 square miles of Bharatpur and adjacent British territory were flooded, and much damage was done. Since 1895, when, as already stated, the control of the Bānganga floods was taken in hand, there has been little or no further trouble, except in 1902, when considerable anxiety was caused by the Gambhīr overflowing its northern bank.

History.

The northern part of the State was held by the Tonwar (Tomara) Rājputs, who ruled at Delhi, and the southern by the Jādon Rājputs, who had their capital at Bayāna. The latter were first ousted by Mahmūd of Ghazni in the eleventh century, but soon regained possession. The entire territory passed into the hands of Muhammad Ghorī at the end of the twelfth century, and for 500 years was held by whatever dynasty ruled in Delhi. In the time of the Mughals the State generally formed part of the *Sūbah* or province of Agra, but the northern *tahsīls*, with the rest of the turbulent Mewāt country, were often placed under a special officer.

The present rulers of Bharatpur are Jāts of the Sinsinwār clan, and claim descent from Madan Pāl, a Jādon Rājput and the third son of

Tahan Pāl, who, in the eleventh century, was ruling at Bayānā, and who subsequently possessed himself of almost all the State now called Karauli. It is said that one of Madan Pāl's descendants, Bāl Chand, kept a Jāt woman as his concubine, and by her had two sons (Bijai and Sijai) who were not admitted into the Rājput brotherhood, but were regarded as Jāts. Having no *got* or clan of their own, they took the name of Sinsinwār from their paternal village, Sinsini (8 miles south of Dīg), and from them are descended the chiefs of Bharatpur. These early Jāts were the Ishmaelites of the jungles, and their sole occupation was plunder. The first to attain notoriety was Brijh, a contemporary of Aurangzeb; he is considered the founder of the State, and was killed in the beginning of the eighteenth century, defending his little capital of Sinsini against the attack of an imperial army which had been sent to punish him. About the same time another member of the family established himself in Thūn (12 miles west of Sinsini), and became master of 40 villages. Churāman, the seventh son of Brijh, became the acknowledged leader of the Jāts of Sinsini and Thūn, built forts there, and possessed himself of Dīg, Kūmher, and other places of importance. He also joined forces with another Jāt of the Sogariya clan, named Khem Karan, and so ravaged the country that the roads to Delhi and Agra were completely closed. Farrukh Siyar in 1714 endeavoured to conciliate them by giving them titles and several districts in *jāgīr*, and they ceased from plundering for a time; but hereditary inclinations were too strong and opportunities too tempting, and they soon resumed their former avocations. In 1718 the Jaipur chief, Sawai Jai Singh, was sent with a strong force to expel Churāman from the country, and Thūn and Sinsini were invested. The Jāts, after a gallant defence, were about to capitulate, when the Saiyid brothers, who then controlled the government, and were at the head of a faction opposed to the Jaipur chief, made peace direct with the Jāt envoy in Delhi, and Jai Singh retired in disgust. Two years later Churāman supported the Saiyids against Muhammad Shāh, but soon after he quarrelled with his son, and in 1722 'took poison by swallowing a diamond.' The Cincinnatus of the Jāts, as Tod calls him, was succeeded by his son, Mohkam Singh, who ruled for a very short time. His first step was to imprison his cousin, Badan Singh, whom he feared as a rival, but the Jāts insisted on his release. Badan Singh invited Mahārājā Sawai Jai Singh of Jaipur to attack Thūn, and the place was captured after a six months' siege, Mohkam Singh escaping with his life. Badan Singh was thereupon proclaimed Rājā of Dīg, on condition of paying tribute to Delhi, and this year (1722) marks the recognition of Bharatpur as a separate State.

Badan Singh lived till about 1755, but soon after his accession left the administration to his capable and successful son, Sūraj Mal, who

raised the Jāt power to its zenith. In 1733 he captured the old fort of Bharatpur from Khem Karan, the rival Jāt chief, whom he killed, and laid the foundations of the present capital. In 1753 he sacked Delhi, and in the following year successfully repelled the combined attack of the imperial forces aided by Holkar and Jaipur, and later on signally defeated Holkar at Kūmher. His crowning achievement was the capture in 1761 of Agra (which the Jāts held till 1774), together with the sovereignty of Agra and Muttra Districts, most of the territory now called Alwar, and parts of Gurgaon and Rohtak. Sūraj Mal met his death in 1763 at the hands of a squadron of Mughal horse while making a foolhardy attempt to hunt in the imperial domains, and was succeeded by his eldest son, Jawāhir Singh. The latter possessed the valour without the capacity of his father, but, nevertheless, during his short rule, extended the Jāt possessions to their utmost limit. He lived chiefly in the Agra palace, where it was his whim to sit on the black marble throne of Jahāngīr; and it was here that he was murdered in June, 1768.

From the death of Jawāhir Singh the power of the Jāts began to decay and their dominions to contract. The process was hastened by family dissensions, the increasing influence of the Marāthās, and the rise of a powerful rival in the chief of the new-born Rājput State of Alwar, to whom the Alwar fort was surrendered by the Bharatpur forces in 1775, and who by the end of the century succeeded in expelling the Jāts from all the northern *parganas* of Alwar. Jawāhir Singh's immediate successor, Ratan Singh, ruled for only nine months, and was followed by his son, Kesri Singh, a minor. Nawal Singh was appointed regent, but his brother, Ranjīt Singh, intrigued against him, and a period of great confusion ensued. In 1771 the Marāthās, taking advantage of the discord, expelled the Jāts from all their conquests east of the Jumna; while Najaf Khān, who espoused the cause of Ranjīt, recovered Agra in 1774, and by defeating Nawal Singh at Barsāna, and capturing Dīg in 1776, broke the power of the Jāts, and reannexed all their territory except the Bharatpur *pargana*, which was left to Kesri Singh. The death of Nawal Singh at Dīg was shortly followed by that of Kesri Singh, and Ranjīt Singh succeeded in 1776. The fortunes of the Jāts, now at their lowest ebb, were partially restored through the intercession of the Rānī Kishorī, widow of the great Sūraj Mal, who, by her personal appeal to Najaf Khān, obtained the restoration of ten districts. These were, however, resumed on Najaf Khān's death in 1782 by his successor, Mirza Shafi, but the latter was murdered at Dīg in the following year, and Ranjīt Singh recovered possession. In 1784 Sindhia, acting nominally on behalf of Shāh Alam II, again confiscated the Bharatpur territories; but, once more on the petition of the aged Rānī, they were restored (in 1785) with the addition of Dīg. Thence-

forward Ranjīt Singh attached himself faithfully to the cause of Sindhia, and was rewarded in 1795 with the grant of three more districts. These fourteen *parganas* now form the State of Bharatpur, but they have been rearranged into ten *tahsīls*.

The early years of the nineteenth century were marked by the struggles of the Marāthās and British for the supremacy of India. In September, 1803, the *vakīls* of Ranjīt Singh met Lord Lake with friendly overtures at Ballabgarh, with the result that an offensive and defensive alliance was concluded on the 29th of that month. A contingent of Bharatpur troops assisted in the capture of Agra, and took part in the battle of Laswāri (in Alwar); and for these services Ranjīt Singh was rewarded by the grant of five additional districts. In 1804 war broke out between the British and Jaswant Rao Holkar, to whom Ranjīt Singh, in defiance of his engagements, and unfortunately for himself and his State, allied himself. In November, 1804, the routed troops of Holkar were pursued to the fort of Dīg, and the British army had advanced on to the glacis when a destructive fire of cannon and musketry was opened on it by the garrison, which consisted entirely of the troops of Bharatpur. The place was accordingly besieged, and carried by storm on December 23, 1804, when the Marāthās and Jāts fell back on Bharatpur. Then followed the memorable siege of Bharatpur (January 3 to February 22, 1805). Lord Lake's force consisted of 800 European and 1,600 native cavalry; 1,000 effective European infantry and 4,400 sepoys; 65 pieces of field artillery, and a siege-train of six 18-pounders and 8 mortars. The engineer department included only three officers and three companies of pioneers. Thus 5,400 infantry had to carry on the duties of the trenches against a garrison which, in point of numbers, was at least ten, if not twenty, times superior to themselves. The whole force of Ranjīt Singh (8,000 men) and as many of the inhabitants of the surrounding country as were considered fit to engage in the defence were thrown into the place, while the broken battalions of Holkar's infantry had entrenched themselves under its walls. The British army took up a position south-west of the town, and the batteries were opened on January 7. Four assaults were delivered, the first on January 9, the second on January 21, the third on February 20, and the fourth on February 21; and all failed, the British losing 3,203 men in killed and wounded. The besieging guns had, from incessant firing, become for the most part unserviceable; the whole of the artillery stores were expended; supplies were exhausted; the sick and wounded were numerous; and it became necessary to raise the siege temporarily. By April Lord Lake was prepared for a renewal of operations, when Ranjīt Singh sued for peace, and a treaty was concluded on April 17, 1805. Under it, the five districts granted to him in 1803 were resumed, and he was made to pay

an indemnity of 20 lakhs (7 lakhs of which were subsequently remitted), but was confirmed in the possession of the rest of his territory.

Ranjīt Singh died in 1805, and his successors were his sons Randhīr Singh (1805–23) and Baldeo Singh (1823–5). The latter left a minor son, Balwant Singh, whose succession was recognized by the British Government, but who was opposed and cast into prison by his cousin, Dūrjan Sāl. The Resident at Delhi moved out a force for the support of the rightful heir; but the operations were stopped by Government, who did not consider that their recognition of the heir apparent during the life of his father imposed any obligation to maintain him in opposition to the wishes of the chiefs and people. While Dūrjan Sāl professed to leave the decision of his claims to the British Government, he made preparations to maintain them by force, and was secretly supported by the neighbouring Rājput and Marāthā States. The excitement threatened to end in a protracted war; and accordingly, with a view to the preservation of the public peace, it was ultimately decided to oppose the usurper and place Balwant Singh in power. Lord Combermere, the Commander-in-Chief, invested the capital in December, 1825, with an army of 20,000 men, well provided with artillery. Recourse was had to mining, and the place was stormed and taken, after a desperate resistance, on January 18, 1826. Dūrjan Sāl was made prisoner, and deported to Allahābād. The ordnance captured amounted to 133 serviceable and two broken and dismounted pieces, the prize money (£481,100) was distributed among the victorious army, and the charges of the war (25½ lakhs) were made payable by the Bharatpur State. Balwant Singh was installed as Mahārājā under the regency of his mother and the superintendence of a Political Agent; but in September, 1826, the Rānī, who had shown a disposition to intrigue, was removed, and a council of regency was formed.

Balwant Singh was put in charge of the administration in 1835 and died in 1853, leaving an infant son, Jaswant Singh. The Agency (abolished in 1835) was re-established and a council formed. In 1862 the chief received the usual *sanad* guaranteeing to him the right of adoption, and in March, 1871, he obtained full powers. Mahārājā Jaswant Singh, who was created a G.C.S.I. in 1877, and whose personal salute was raised in 1890 from 17 to 19 guns, died in 1893. The principal events of his time were the opening of the railway in 1873–4; the famine of 1877; the agreement of 1879 for the suppression of the manufacture of salt; the abolition in 1884 of all transit duties save those on liquor, opium, and other intoxicating drugs; and the raising in 1889–90 of an infantry and a cavalry regiment, the latter since replaced by a transport corps, for the defence of the empire. Jaswant Singh was succeeded by his eldest son, Rām Singh, who was installed in 1893, but, in consequence of his intemperate habits, was deprived of all powers in

1895. The administration was conducted, first by a Dīwān and consultative council, and next by a council only, under the general control of the Political Agent. In June, 1900, Rām Singh in a fit of passion killed one of his private servants at Abu, and for this wanton murder he was deposed. His son, Kishan Singh, the present Mahārājā, was born in 1899.

The principal places of archaeological interest are BAYĀNĀ, KĀMAN, and RŪPBĀS. There are also some fine specimens of Jāt architecture of the eighteenth century at DĪG.

Population.

The number of towns and villages in the State is 1,302, and the population at each of the three enumerations was: (1881) 645,540, (1891) 640,303, and (1901) 626,665. These figures show a decline of nearly 3 per cent. since 1881, which was due almost entirely to maladministration in the time of Jaswant Singh. There is some reason for suspecting that the figures for 1891 were intentionally exaggerated in order to conceal the decrease in population. The State is divided into the two districts or *nizāmats* of Bharatpur and Dīg, each containing five *tahsīls*: namely, Bayānā, Bharatpur, Nādbai, Rūpbās, and Wer in the former; and Dīg, Kāman, Kūmher, Nagar, and Pahāri in the latter.

The following table gives the chief statistics of population in 1901:—

Nizāmat.	Number of Towns.	Number of Villages.	Population.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Bharatpur	4	692	366,532	Not available.	11,497
Dīg	3	603	260,133	Not available	6,265
State total	7	1,295	626,665	−2·1	17,762

There are seven towns, the principal being BHARATPUR CITY, DĪG, and KĀMAN. At the Census of 1901, Hindus numbered 510,508, or more than 81 per cent., and Musalmāns 112,621, or nearly 18 per cent. The languages mainly spoken are Braj Bhāshā, one of the principal dialects of Western Hindī, and Mewātī, one of the four main groups of Rājasthānī.

The most numerous caste is that of the Chamārs. They number 101,000, or about 16 per cent. of the total, and are workers in leather, cultivators, and field-labourers. Next come the Jāts (93,000, or nearly 15 per cent.). There are several clans, the chief being that known as Sinsinwār. The Jāts possess fine physique, a sturdy independence of character, and are for the most part agriculturists. The Brāhmans number 65,000, or about 10 per cent. of the population. Some perform

priestly duties, others are in service (military, civil, or private), and a good many earn their livelihood by cultivation. There are several classes, but the Gaurs are said to predominate. The Meos (51,500, or about 8 per cent.) are found in every *tahsīl* except Bayānā and Rūpbās, but are most numerous in Kāman, Nagar, and Pahāri. A full account of them will be found in the article on MEWĀT. They were formerly notorious for their predatory habits, but have now settled down to agriculture, in which they receive great assistance from their women, and run the Jāts close for industry. The Gūjars number 44,900, or about 7 per cent. They are mostly agriculturists, but some are cattle-dealers and breeders, and a few are in the service of the State. The Gūjars may be divided into two main classes, Khāri and Laur; the latter is socially far superior to the former, and has the privilege of furnishing nurses for the ruling family. The main occupation of the people is agriculture, more than 58 per cent. living by the land, and another 2 per cent. being partially agriculturists. Over 15 per cent. are engaged in such industries as cotton-weaving and spinning, leather-work, pottery, carpentry, &c.

Out of 62 native Christians in 1901, 32 were Roman Catholics (all in the Dīg district), 14 Methodists, and 14 belonged to the Church of England. The Church Missionary Society established a branch at the capital in 1902, while the American Methodist Mission at Agra has sent native Christian workers to two or three places in the State since 1901.

Agriculture.

The soils are locally divided, with reference to irrigation, into *chāhi*, watered from wells; *sairāba*, watered from canals or *bands*, or benefited by drainage from hill-sides; and *barāni*, dependent on rainfall; and with regard to quality, into *chiknot*, a stiffish clay or clayey loam—black in colour—the richest natural soil, and rarely manured; *mattiyār*, the ordinary loam, which has a mixture of sand, and is lighter in colour and more easily worked than *chiknot*—it is the common soil of the level plains and is much improved by manure; and *bhūr*, the inferior sandy soil found at the foot of hills, on high uplands, and along the banks of streams, which is most common in Wer and Bayānā in the south, and is suited only for the lighter crops, but its area is not considerable, being only about 60 square miles. The soil of Bharatpur, taken as a whole, is probably superior to that of almost any other State in Rājputānā; the territory has further the advantages of a good rainfall, and of having more than two-fifths of its area protected by wells or benefited by the annual inundations.

The area of the State is 1,982 square miles, of which about 384 square miles, or nearly one-fifth, are uncultivable, consisting chiefly of forests, hills, grass preserves, rivers, roads, and the sites of towns and villages. The area available for cultivation is consequently 1,598 square

miles; and the net area cropped in 1903-4 was 1,278 square miles, or more than 64 per cent. of the total area of the State, and 80 per cent. of the area available for cultivation. Turning to individual crops, *bājra* occupied 314 square miles, or 24 per cent. of the net area cropped; *jowār*, 247 square miles, or 19 per cent.; gram, over 15 per cent.; barley over 8, wheat about 6, and cotton 5 per cent.

The local cattle are small and hardy, but of inferior breed; the best plough-oxen are usually imported from Alwar and the Punjab. To encourage horse and mule-breeding, stallions are maintained at several places. Sheep and goats of the ordinary variety are kept in large numbers. Fairs are held yearly at Bharatpur city and Dīg, usually in September or October.

Of the net area cropped, 294 square miles (or 23 per cent.) are irrigated, chiefly from wells. There are said to be more than 22,000 wells in the State, of which nearly 14,000 are masonry and the rest unbricked. A masonry well costs from Rs. 300 to Rs. 1,200, according to depth and nature of subsoil, and irrigates about 6 acres, while an unbricked well costs from Rs. 30 to Rs. 100, may last for from two to twenty years, and irrigates about 3 acres. Leathern buckets drawn up with a rope and pulley by bullocks moving down an inclined plane are used for lifting the water, save in shallow wells, where a contrivance called *dhenklī*, consisting of a wooden pole with an earthen pot at one end and a weight at the other, is more popular. There are 164 irrigation works (*bands* and canals) maintained by the Public Works department, of which the following are the most important. The Bareta *band* across the Kākand river was commenced in 1866 but abandoned in 1869, after Rs. 70,000 had been spent, and the dam carried half-way across. Work was resumed in 1895 and the dam was completed in 1897. This is the only large storage reservoir in the State; the sheet of water is about 4 square miles in area, with a capacity below escape-level of 1,500 million cubic feet. There are three distributary channels, and the area annually irrigated is about 5,000 acres. The total expenditure since 1895 has been nearly 3 lakhs. Another old irrigation work is the Ajan *band*, which holds up the greater part of the inundations of the Bāngangā and Gambhīr rivers and distributes them. It was originally constructed about 100 years ago by Mahārājā Ranjīt Singh, but subsequently fell into disrepair. It has been steadily improved since 1895 at a cost of about 1.6 lakhs, and is now 12 miles long with 23 sluices, and supplies water to 77 villages, the protected area in normal years being about 31,000 acres. The Sīkri *band* across the Rūparel river is also an old work, having been constructed by Mahārājā Balwant Singh about 1840. It has recently been extended and improved at a cost of about 1.7 lakhs, and is now 14 miles in length with a number of distributary channels. The maximum area protected is about 28,000 acres.

Numerous other irrigation works, large and small, have been constructed or restored since 1895 at a total cost of about 8·5 lakhs.

There are no real forests, but about 38 square miles are occupied by fuel and fodder reserves (locally called *ghannas* and *rūndhs*), and the following trees are common: *babūl* (*Acacia arabica*), *farās* (*Tamarix orientalis*), *kandī* (*Prosopis spicigera*), *karel* (*Capparis aphylla*), *nīm* (*Melia Azadirachta*), &c. Grass and wood are supplied for State animals; and, after the first crop of grass has been cut, the village cattle are allowed to graze on payment of a small fee.

The State is poor in mineral products. Copper and iron are found in the hills in the south, but the mines have not been worked for many years. The famous sandstone quarries at Bansi Pahārpur furnished materials for the most celebrated monuments of the Mughal dynasty at Agra, Delhi, and Fatehpur Sīkri, as well as for the beautiful palaces at Dīg. The stone is of two varieties: namely, dark red, generally speckled with yellowish white spots or patches; and a yellowish white, homogeneous in colour and texture, and very fine-grained. The red variety is inferior for architectural purposes to the white, but is remarkable for perfect parallel lamination; and, as it readily splits into suitable flags, it is much used for roofs and floors. The annual out-turn is about 14,000 tons, of which about two-thirds is sold to the public on payment of royalty, and the balance is utilized for State works. These quarries give employment to some 450 labourers, who are mostly Ujhas (or carpenters) residing in the neighbourhood, and whose monthly earnings average Rs. 6 to Rs. 10 per head.

Trade and communications.

The manufactures consist of coarse cotton cloth woven in all parts of the State, iron household utensils made at Dīg, glass and lac bangles in various places, and pipe-bowls and clay pipes (*gaddas*) at Nagar and the capital respectively. The most interesting manufactures are the *chauris* (or fly-whisks) and the fans made at Bharatpur city of ivory or sandal-wood.

The chief exports are cereals, oilseeds, cotton, *ghī*, sandstone, and cattle to Agra, Muttra, and Hāthras, and to some extent to adjacent villages of Alwar, Dholpur, Jaipur, and Karauli. The main imports include rice, sugar, and molasses from Bareilly, Pīlībhīt, and Shāhjahānpur; salt from Sāmbhar; English piece-goods from Delhi; metals from Hāthras; and country cloth from some of the villages of Agra.

The Rājputāna-Mālwā Railway runs for about 33 miles through the centre of the State, from east to west, with four stations on this length. The Cawnpore-Achhnerā branch of the same railway passes through an outlying portion of the State in Muttra District, with a station at the village of Bhainsa.

The total length of metalled roads is 165 miles, and of unmetalled roads 323 miles. All are maintained by the State, at an annual cost of

about Rs. 97,000, and all were constructed by the State, except the Agra-Ahmadābād road (45 miles within Bharatpur limits), which was constructed by the British Government between 1865 and 1867.

Imperial postal unity was accepted by the Darbār in 1896, and there are now twenty post offices in the State, four of these being also telegraph offices.

Bharatpur enjoys a good and fairly regular rainfall, which renders it more secure against famine and scarcity than most parts of Rājputāna. In 1877 there was very little rain between June and September, and the *kharīf* crops in some parts failed altogether, and in others were about one-fifth of the average. Numbers are said to have died from starvation, and about 100,000 people emigrated. There was great delay in starting poorhouses and relief works, and the advances to agriculturists (about Rs. 80,000 in cash and 90 tons of grain) were quite inadequate to the necessities of the case. In 1895-6 and 1896-7 there was severe drought and scarcity, almost amounting to famine, in the southern *tahsīls*. Both crops failed largely, and many cattle died. Relief works were started in November, 1896, which gave employment to 3,400 units daily till August, 1897, the expenditure being about Rs. 1,40,000. Very little was done in the way of suspensions of land revenue, and pressure led to wholesale desertions. In 1899-1900 the State enjoyed comparative immunity, but there was a certain amount of distress, as the rainfall (19 inches) was badly distributed. Relief works and poorhouses were started, advances were given to agriculturists, and suspensions and remissions of land revenue sanctioned. The cattle suffered from want of fodder, which, in spite of the prohibition of its export, was exhausted by May, 1900, and nearly 203,000 head are said to have died. More than 2,000,000 units were relieved on works, and over 83,000 gratuitously, and the direct expenditure was 2·8 lakhs.

Famine.

The Mahārājā being a minor, the administration is carried on by a council of four members under the supervision and general control of the Political Agent, all important matters being referred to the Governor-General's Agent in Rājputāna. Each member of council is in immediate charge of a number of departments, and, subject to certain rules, disposes of all the work connected therewith. Each of the two districts into which the State is divided is for judicial purposes under a *nāzim*, and for revenue purposes under a Deputy-Collector, while in each of the *tahsīls* is a *tahsīldār*, assisted by a *naib-tahsīldār*.

Administration.

In the administration of justice, British procedure and laws are followed generally. The lowest courts are those of the *naib-tahsīldārs*, who are third-class magistrates and can try civil suits not exceeding Rs. 50 in value. The *tahsīldārs* have second-class powers as magistrates,

and decide civil suits for sums not exceeding Rs. 200. Appeals against the decisions of these courts lie to the *nāzim* of the district, who has the ordinary powers of a District Magistrate and can try civil suits without limit. Over the *nāzims* is the Civil and Sessions Judge. On the civil side, his work is appellate only, while on the criminal side he tries original Sessions cases, and can sentence up to ten years' imprisonment and fine to any extent. The highest court is the council, which, besides hearing first appeals from the Civil and Sessions Judge, and second appeals from the *nāzims*, gives judgement in murder cases, though a sentence of death requires the confirmation of the Governor-General's Agent. Revenue suits are heard by the *tahsīldārs* and the Deputy-Collectors, subject to the supervision of the council.

The normal revenue of the State is about 31 lakhs, and the ordinary expenditure about 28 lakhs. The chief sources of revenue are: land (including cesses), 21·7 lakhs; customs, 3·3 lakhs; payment under the Salt agreement of 1879, 1·5 lakhs; and stamps, about Rs. 34,000. The main items of expenditure are: public works, 6·5 lakhs; army, 5·7 lakhs; cost of council, courts, and revenue staff, 3·3 lakhs; stables, elephants, &c., 2·2 lakhs; allowances to ex-Mahārājā, Sardārs, &c., 1·1 lakhs; and police, charities, and pensions, about a lakh each. These figures do not include the income and expenditure (approximately 2·1 lakhs) of the Deorhi *tahsīl*, from which the expenses of the palace are defrayed. The financial position of the State is very satisfactory; the assets in 1905, including a cash balance of 8·9 lakhs and a sum of 25 lakhs in Government securities, amounted to about 38 lakhs, and there were no liabilities.

British currency is the sole legal tender in the State. Formerly two mints were at work, namely, at Dīg and the capital, but the former is said to have been closed in 1878 and the latter in 1883. The old local rupee, called *hāli*, used to be much the same in value as the British, but now exchanges for about ten British annas.

The land tenures may be divided into *khālsa*, *muāfi*, and *istimrāri*; and the areas under these tenures are respectively 87·6, 11·8, and 0·6 per cent. of the total area of the State. In the *khālsa* villages the superior and final right of ownership is vested in the State, but the *zamīndārs* also hold a subordinate proprietary right as long as they pay the demand. This right is heritable by their heirs, but cannot be alienated without the consent of the Darbār, and, even with that consent, cannot be alienated to non-agriculturists. The *muāfi* tenure is of several kinds. Land may be given rent-free in charity (*panārth*), or for religious purposes to temples, Brāhmans, *purohits*, &c. Other land is held in *inām*, or on the *chauth* tenure. Formerly these were identical. Estates were granted rent-free by the earlier rulers to their brethren in arms, as a reward for past, or a guarantee for future, military services; and these

services were defined in each case as so many guns, i.e. so many matchlock-men. After Najaf Khān had seized Dīg and Kūmher in 1776, some of these *ināmis* admitted the Mughal supremacy and were made to pay *chauth* or one-fourth of the revenue; and when these districts were restored to Bharatpur, this payment was continued. This is said to be the origin of the *chauth* tenure generally; but another form of it is in force in a few villages, under which one-fourth of the assessment is remitted, and three-fourths are taken by the State, military service being still rendered. Lastly, the Thākurs, Sardārs, and relatives of the chief neither pay revenue nor perform service. There are only four *istimrāri* villages, which are held on a fixed and permanent quit-rent.

In the *khālsa* area, prior to 1855, the State in theory took one-third of the produce, a relic of Akbar's land revenue system, which was levied either by actual division of the crop (*batai*), or more frequently by appraisement of the yield of the standing crop (*kankūt*), which was converted into a cash demand at current rates. A further development led to the contract system, by which the *zamīndār* or the middleman (*thekadār*) contracted to pay a fixed sum for a year or term of years. In practice, however, the State took all it could exact from the people, and much of the residue was swallowed up by rapacious and corrupt officials. The first summary settlement, for three years, was made in 1855, and the demand, based on the average collections of the previous ten years, was 14·2 lakhs. This was followed by a series of summary settlements, till in 1900 the first regular settlement was completed for a term of twenty years. The initial demand then fixed was 20·6 lakhs, and the final demand, owing to progressive assessment, rose to 21·4 lakhs in 1905–6. This settlement followed the Punjab lines, the net 'assets' being calculated from a valuation of the produce. The assessment of 'wet' land varies from Rs. 2 to Rs. 8–2–0 per acre, and of 'dry' land from Rs. 1–4–0 to Rs. 2–8–0; and the incidence of land revenue per head of the rural population is Rs. 4–6–0.

The State maintains an Imperial Service infantry regiment of 652 of all ranks, excluding followers, and a transport corps consisting of 350 carts, 600 mules, and 368 men and followers. The infantry regiment was raised in 1889, and the transport corps in 1899, the latter taking the place of a cavalry regiment. The local irregular force numbers about 2,200 men, of whom 513 are cavalry and 132 are gunners. There are 82 guns, of which 40 are said to be serviceable. The Imperial Service regiment and the transport corps cost usually about 3 lakhs, and the rest of the army 3¾ lakhs a year; but both are at present under sanctioned strength.

The police force is under a Superintendent, and numbers 760 of all ranks, of whom 25 are mounted. There are also more than 1,000

chaukīdārs, who keep watch and ward in their villages; they receive no pay, but hold land at favoured rates, or get certain perquisites from the *zamīndārs*. Till quite recently two jails were maintained in the State: namely, a Central jail near the capital and a District jail at Dīg, which together had accommodation for about 220 prisoners, and cost about Rs. 25,000 a year; but the jail at Dīg has lately been abolished.

In the literacy of its population Bharatpur stands eleventh among the twenty States and chiefships of Rājputāna, with 2·8 per cent. (5·2 males and 0·1 females) able to read and write. Excluding elementary indigenous schools (*maktabs* and *pāthsālas*), there are now 99 educational institutions in the State, of which 96 are maintained by the Darbār and the remaining 3 by the Church Missionary Society. The number on the rolls of these schools in 1904–5 was about 4,400, and the daily average attendance about 3,100. The more important institutions are the high school, the Sanskrit school, and an Anglo-vernacular school for the upper classes at the capital, and an Anglo-vernacular school at Dīg. Elsewhere the vernacular alone is taught. There are 4 girls' schools, attended on the average by 100 girls. The State expenditure on education, including stipends and scholarships, is about Rs. 48,000 yearly. Fees are charged in some cases, and in 1904–5 yielded about Rs. 1,000.

Including the Imperial Service and jail hospitals, there are 7 hospitals and 10 dispensaries, with accommodation for 165 in-patients. In 1904 the number of cases treated was 145,165 (1,950 being in-patients), and 3,904 operations were performed. The total expenditure was about Rs. 37,000.

A staff of 15 vaccinators under a native superintendent is employed, which in 1904–5 successfully vaccinated 27,641 persons, or 44 per 1,000 of the population, against an average during the previous five years of nearly 67 per 1,000.

[C. K. M. Walter, *Gazetteer of Bhurtpore State* (Agra, 1868); *Rājputāna Gazetteer*, vol. i (1879, under revision); M. F. O'Dwyer, *Settlement Reports* (1898–1901); H. E. Drake-Brockman, *Gazetteer of Eastern Rājputāna States* (Ajmer, 1905); *Administration Reports of Bharatpur* (annually from 1895–6). For an account of the first siege of Bharatpur, *see* J. Grant Duff, *History of the Mahrattas* (1826); J. N. Creighton, *Narrative of the Siege and Capture of Bhurtpore* (1830); and C. R. Low, *Life and Correspondence of Sir George Pollock* (1873).]

Bharatpur City.—Capital of the State of the same name, in Rājputāna, situated in 27° 13′ N. and 77° 30′ E., on the Rājputāna-Mālwā Railway, 34 miles west of Agra, 875 north-west of Calcutta, and 815 miles north-east of Bombay. It is the sixth largest city in Rājputāna, having a population in 1901 of 43,601, compared with 66,163 in 1881 and 67,555 in 1891. The large decrease of more than 35 per cent.

is said to be due partly to exaggerated enumeration in 1891, and partly to the fact that, in the year last mentioned, several suburbs were considered as part of the city, while in 1901 they were treated as separate villages. According to the latest Census, Hindus number 30,784, or 70 per cent. of the total; Musalmāns, 11,964, or over 27 per cent.; and Jains, 722. The city and fort are said to have been founded about 1733, and to have been named after Bharat, a legendary character of great fame in Hindu mythology. The fort of Bharatpur is celebrated for having baffled the attacks of Lord Lake in 1805, and for its capture by Lord Combermere on January 18, 1826. An account of both these sieges will be found in the article on the BHARATPUR STATE. The famous mud walls still stand, though a good deal out of repair. The only important manufactures are the *chauris* or fly-whisks made of ivory or sandal-wood. The art is said to be confined to a few families, who keep the process a profound secret. The tail of the fly-whisks is composed of long, straight fibres of either of the materials above mentioned, which in good specimens are almost as fine as ordinary horse-hair. These families also make fans of the same fibres beautifully interwoven. A municipal board of thirteen members is responsible for the sanitation and lighting of the city, the State providing the necessary funds, about Rs. 24,000 a year. The Central jail is at Sewar, about 3 miles to the south-west, and, though much improved during recent years, is not altogether satisfactory as a prison, and is often overcrowded. The jail manufactures, such as rugs, carpets, blankets, matting, &c., yield a yearly profit of about Rs. 1,500. The educational institutions, eight in number (omitting indigenous schools such as *maktabs* and *pāthsālas*), are attended by 890 boys and 90 girls. Of these, five are maintained by the State and three by the Church Missionary Society. The only school of any note is the Darbār high school, which teaches up to the entrance standard of the Allahābād University, and which, since 1894, has passed twenty-two students for that examination. Including the two Imperial Service regimental hospitals and that attached to the jail, there are five hospitals and a dispensary at Bharatpur, with accommodation for 148 in-patients. In the Victoria Hospital, one wing of which is solely for females, the Bharatpur State possesses what has been pronounced by experts to be the best equipped and most thoroughly up-to-date institution, as regards medical and scientific details, in India at the present time.

Bharatpur Village.—Head-quarters of the Chāng Bhakār State, Central Provinces, situated in 23° 44′ N. and 81° 49′ E., 2 miles north-west of Janakpur on the Banās river. Population (1901), 635. On three sides the village is surrounded by forest-clad hills, but on the north the country slopes down to the valley of the Banās. The river itself, though distant only a mile, is concealed from view by an

intervening stretch of jungle. The village contains the house of the Bhaiya, as the chief is called.

Bharauli.—*Pargana* in the sub-*tahsīl* of SIMLA-*cum*-BHARAULI, Simla District, Punjab.

Bhārejda.—Petty State in KĀTHIĀWĀR, Bombay.

Bhareli.—A river of Assam, which rises in the Himālayas in the territory occupied by the Akā and Daflā tribes, and enters Darrang District through a gorge of great beauty. After debouching on the plains it flows in an easterly direction round a range of low hills, and then pursues a tortuous course with a generally southern direction to the Brahmaputra, which it joins about 8 miles above Tezpur, after a total course of 160 miles. This, however, is a new channel; the old course ran from Bamgaon to a point about one mile east of Tezpur. The principal tributaries are: on the right bank, the upper Sonai and Mansiri; and on the left bank, the Diji, Namiri, upper Khari, Bar, and Dikrai. During the rains the Bhareli often overflows its banks, and the result is that for the greater part of its course through the plains it flows by tree forest or uncultivated land. There are no places of importance on its banks, and this fact, coupled with the swiftness of the current, renders it of little use as a trade route. A ferry on the trunk road crosses the river, which, during the rains, is about 250 yards in width at this point.

Bhārhut.—Ancient site in NĀGOD STATE, Central India.

Bharthana.—Central *tahsīl* of Etāwah District, United Provinces, conterminous with the *pargana* of the same name, lying between 26° 30′ and 26° 59′ N. and 78° 59′ and 79° 21′ E., with an area of 416 square miles. Population increased from 169,979 in 1891 to 191,141 in 1901. There are 300 villages and two small towns: Lakhnā (population, 3,771) and Aherīpur (3,144). The demand for land revenue in 1903–4 was Rs. 3,07,000, and for cesses Rs. 51,000. The density of population, 459 persons per square mile, is slightly below the District average. The *tahsīl* is divided by the rivers Sengar, Jumna, and Chambal into four tracts. North of the Sengar lies a fertile area called *pachār*, intersected by two smaller streams, and containing some large areas of barren land and marshes. Irrigation is provided by the Etāwah branch of the Lower Ganges Canal. South of this river the soil is red in colour and sandy in nature. Owing to the depth of the spring-level, irrigation was formerly difficult; but the Bhognīpur branch of the Lower Ganges Canal now serves this area, which is called *ghār*. The tract bordering on the Jumna, called *karkha*, and the area south of it, known as *pīr*, are intersected by ravines, but have a fair area of alluvial soil, or *kachhār*, on the banks of the river. In 1903–4 the area under cultivation was 213 square miles, of which 103 were irrigated. Canals supply six-sevenths of the irrigated area, and wells most of the rest.

Bhartpur.—State and capital thereof in Rājputāna. *See* BHARATPUR.

Bharuch.—District, *tāluka*, and town in Bombay. *See* BROACH.

Bhārudpura.—*Thakurāt* in the BHOPĀWAR AGENCY, Central India.

Bharwain.—Hill sanitarium in the Una *tahsīl* of Hoshiārpur District, Punjab, situated in 31° 48′ N. and 76° 10′ E. Population (March, 1901), 17. It lies on the Jullundur-Dharmsāla road, 28 miles from Hoshiārpur town, near the borders of Hoshiārpur and Kāngra Districts, on the summit of the Sola Singhi range, at an elevation of 3,896 feet above the sea.

Bhasāwar.—Town in the Wer *tahsīl* of the State of Bharatpur, Rājputāna, situated in 27° 2′ N. and 77° 3′ E., close to the Jaipur border, and about 30 miles west-by-south-west of Bharatpur city. Population (1901), 6,690. The town is the head-quarters of a *naib-tahsīldār*, and possesses a post office, a vernacular school attended by about 180 boys, and a dispensary. It is supposed to have been founded by, and named after, Bhasāwar Khān, an officer of Mahmūd of Ghazni (1001–30).

Bhātgaon.—Town in Nepāl, about 8 miles from Kātmāndu, the capital of the State (27° 42′ N., 85° 26′ E.). Estimated population, 30,000, chiefly Newārs. From the end of the fifteenth century Bhātgaon was one of the petty Newār States in the Valley of Nepāl, and in the eighteenth century its quarrels with its neighbours at Kātmāndu and Pātan paved the way for its conquest by the Gurkhas in 1768–9. Bhātgaon is now garrisoned by the Gurkha government. A hospital was opened here in June, 1904.

Bhathan.—Petty State in KĀTHIĀWĀR, Bombay.

Bhatinda Tahsīl.—*Tahsīl* in the Anāhadgarh *nizāmat*, Patiāla State, Punjab. *See* GOVINDGARH.

Bhatinda Town (also known as Govindgarh).—Head-quarters of the Govindgarh *tahsīl*, Anāhadgarh *nizāmat*, Patiāla State, Punjab, situated in 30° 13′ N. and 75° E. Population (1901), 13,185. The history of Bhatinda is obscure. In the pre-Muhammadan period it was called Vikramagarh, and it appears in the early Muhammadan historians as Batrinda, often incorrectly transposed into Tabarhind. The Hindu chronicles of Kashmīr describe it as Jaipāl's capital, and say that Mahmūd of Ghazni captured it. Tradition ascribes its foundation to one Bhāti Rao, who also founded Bhatner in the Bīkaner State; and it undoubtedly formed part of the territory held by the Bhāti chief Hemhel, from whom the Phūlkiān houses of Patiāla, Jīnd, and Nābha claim descent. In the early Muhammadan period the country round formed an important fief of the Delhi empire, and under Altamsh was a crown province. For a long period, however, it fell into decay, pro-

bably owing to the drying up of the Ghaggar and other streams which watered its territory. About 1754 it was conquered by Mahārājā Ala Singh of Patiāla, and has since been held by that State. Bhatinda is now a thriving town, lying in the centre of the great grain-producing tract called the Jangal, and has a large grain mart. It is also an important railway junction, at which the Southern Punjab, Jodhpur-Bīkaner, Rājputāna-Mālwā, and branches of the North-Western Railways meet. It imports sugar, rice, and cotton-seed, exporting wheat, gram, and oilseeds. The great fort, about 118 feet high, which dominates the town, is conspicuous for many miles round, and has thirty-six bastions. The town possesses a high school, a hospital, and numerous railway and canal offices.

Bhatkal (or Susagadi; Sanskrit, *Manipura*).—Town in the Honāvar *tāluka* of North Kanara District, Bombay, situated in 13° 59′ N. and 74° 32′ E., near the mouth of a small stream that falls into the Arabian Sea, about 64 miles south-east of Kārwār. Population (1901), 6,964. The town contains two small and two large mosques; and the Musalmān population has the special name Navāyat, said to mean 'newly arrived,' owing to their being Sunni Persians, driven from the Persian Gulf by the persecution of their Shiah brethren in the eighth century. Many of these Navāyats are wealthy traders, and visit different parts of the country for business purposes, leaving their families at Bhatkal. From the fourteenth to the sixteenth century, under the names of Batticala (Jordanus, 1321), Battecala (Barbosa, 1510), and Baticala (De Barros), Bhatkal was a flourishing centre of trade, where ships from Ormuz and Goa came to load sugar and rice. In 1505 the Portuguese established a factory here, but a few years later the capture of Goa (1511) deprived the place of its importance. Two attempts were made by the British to establish an agency at Bhatkal—the first in 1638 by a country association, the second in 1668 by the Company, but both failed. According to Captain Hamilton (1690–1720), the remains of a large city and many Jain and Brāhman temples were still to be seen in the beginning of the eighteenth century. The chief articles of trade are rice, betel-nuts, coco-nuts, and cotton cloth, the imports being valued at 1·22 lakhs a year and the exports at Rs. 62,000. Bhatkal was constituted a municipality in 1890, its income during the decade ending 1901 averaging Rs. 4,600. In 1903–4 the income was Rs. 6,500. Among the objects of interest at Bhatkal are the following temples: Khetapai Nārāyan Devasthān, built of black stone with some fine sculptures; Shāntappa Naik Tirumal Devasthān, built entirely of black basalt; Raghunāth Devasthān, a small ornate temple in the Dravidian style; Jattapa Naikana Chandranātheshwar *basti*, a large Jain temple. About half a mile south-west of Bhatkal is an old stone bridge said to have been

built by the Jain princess Channābhaira Devī (1450). On the summit of the hill forming the northern boundary of the bay is a lighthouse visible for 8 miles. The town contains a dispensary and three schools, of which one is a middle school and one is for girls.

Bhātkherī.—*Thakurāt* in the MĀLWĀ Agency, Central India.

Bhātkulī.—Village in the District and *tāluk* of Amraotī, Berār, situated in 20° 54′ N. and 77° 39′ E., 10 miles from Amraotī town. Population (1901), 2,767. Rājā Rukmin of Vidarbha is said to have retired to this place after the abduction of his sister Rukminī by Krishna.

Bhatnair (*Bhatner*).—Town and fort in Bīkaner State, Rājputāna. *See* HANUMĀNGARH.

Bhātpāra.—Town in the Barrackpore subdivision of the District of the Twenty-four Parganas, Bengal, situated in 22° 52′ N. and 88° 25′ E., on the left bank of the Hooghly river. Population (1901), 21,540. Bhātpāra has long been famous as a seat of Sanskrit learning, and contains several *tols* where pupils are educated and fed free of charge. It is also a busy industrial place, possessing jute-mills and a paper-mill, situated chiefly in the villages of Jagatdal and Kānkīnāra. Bhātpāra was formerly included in the Naihāti municipality, but in 1899 a separate municipality was constituted. The income during the five years since its constitution averaged Rs. 25,000, and the expenditure Rs. 17,000. In 1903–4 the income was Rs. 51,000, including a loan from Government of Rs. 20,000 and Rs. 11,000 derived from a tax on persons; and the expenditure was Rs. 31,000.

Bhattiāna.—A tract of country in the Punjab, lying between 29° 15′ and 30° 15′ N. and 74° 0′ and 75° 45′ E., and comprising the valley of the Ghaggar from Fatehābād in Hissār District to Bhatnair in the State of Bīkaner, together with an undefined portion of the dry country stretching north-west of the Ghaggar towards the old bank of the Sutlej. For its physical aspects *see* HISSĀR DISTRICT. Roughly speaking, the tract is bounded on the east by Hariāna, on the south and west by the Bīkaner desert, while on the north its boundary includes Bhatinda in Patiāla, and may be taken as roughly corresponding to the line of the Southern Punjab Railway. Bhattiāna derives its name from the Bhattis, a collection of Muhammadan tribes claiming Rājput origin, who also gave their name to Bhatnair.

Early in the fourteenth century the wild country held by the Bhattis and Mains (Mīnās) was attached to Abohar, a dependency of Dipālpur; and the daughter of Rāna Mal, the Bhatti chief, was married to Sipāh Sālār Rajab, and in 1309 became the mother of Fīroz Shāh III. The Bhatti chiefs seem to have maintained a position of semi-independence for a considerable time. Rai Hansu Bhatti, son of Khul Chain, was employed under Mubārak Shāh II against Pulād in 1430 and

1431. Later, the Bhatti chief, Ahmad Khān, who had risen to great power and had 20,000 horse under him, defied prince Bāyazīd in the reign of Bahlol Lodī, and, though at first victorious, was eventually defeated and killed. Mirza Kāmrān was employed against the Bhattis in 1527; and they seem to have been reduced to complete subjection by the Mughals, for nothing is heard of them until the decay of the Delhi empire. For twenty-four years after 1750 Bhattiāna was harassed by the Sikhs and Bhattis in turn, until in 1774 Amar Singh, the Rājā of Patiāla, conquered it. But Patiāla was unable to hold the tract, and lost the whole of it (Rānia in 1780–3, Fatehābād in 1784), the Bhatti reconquest being facilitated by the great famine of 1783 which desolated the country. Sirsa fell to George Thomas in 1795–9; and on his fall in 1801 the Marāthās acquired Bhattiāna, only to lose it in 1803 to the British, who took no steps to establish a strong government. At that time Bhattiāna was divided between the chiefs Bahādur Khān and Zābita Khān, of whom the former held the country in the neighbourhood of Fatehābād, while the latter owned Rānia and Sirsa. In 1810 the raids of Bahādur Khān had become intolerable, and an expedition sent against him annexed Fatehābād, while in 1818 the territories of Zābita Khān were acquired. The country thus obtained formed the subject of a long dispute with the Patiāla chief, who had encroached on it between 1818 and 1837. It was finally awarded to the British Government, and made into a separate District of Bhattiāna, which was transferred to the Punjab under the name of Sirsa District after 1857. *See* HISSĀR.

Bhattiprolu.—Village in the Tenāli *tāluk* of Guntūr District, Madras, situated in 16° 6′ N. and 80° 47′ E., to the north of Repalle. Population (1901), 3,568. Its interest lies in the Buddhist *stūpa* which it contains. This was much damaged in the last century by subordinates of the Public Works department, who utilized its marbles for making a sluice and other constructions, and little of it now remains. The *stūpa* was 132 feet in diameter, and excavations made in 1892 revealed three caskets containing relics and jewels, which are now in the Madras Museum. On them are nine inscriptions in the Pāli language, and in characters resembling those of Asoka's inscriptions, stating that they were made to hold relics of Buddha. The *stūpa* and these caskets are described in vol. xv of the *Reports of the Archaeological Survey of India.*

Bhaun.—Town in the Chakwāl *tahsīl* of Jhelum District, Punjab, situated in 32° 52′ N. and 72° 40′ E., on the southern extremity of the Dhanni plain. Population (1901), 5,340. The town possesses a vernacular middle school, maintained by the District board.

Bhaunagar State (*Bhāvnagar*).—State in the Kāthiāwār Political Agency, Bombay, lying between 20° and 22° 18′ N. and 71° 15′ and

72° 18' E., with an area of 2,860 square miles. It is bounded on the north by Rānpur, Ahmadābād District, and the Pānchāl; on the east by the Gulf of Cambay and the Dhandhuka *tāluka* of Ahmadābād; on the south by the Arabian Sea; and on the west by Sorath and Hālār.

Physical aspects.

The country has a very varied aspect, being in some parts a mere salt flat, in others a rich plain of black soil, while portions of the Sihor range and the hills in the Kundla subdivision lend a mountainous appearance to other parts. The principal ranges of hills are those of Sihor, Khokra, Und, the Bābriādhar, and the outlying hills of the Gīr on the western border, the highest hill being Mitiāla (over 1,000 feet). They are all volcanic, and consist of trap and basalt, piercing, and in some places elevating, a course of sandy limestone. In places laterite of good quality for building and a conglomerate abounding in fossils are found. The principal rivers are the Shetrunji, Bagad, and Mālan, the waters of which are used for irrigation. The State contains a fine artificial lake about 5 miles in circumference near the capital, formed by an embankment across the bed of the Gadechi river. The climate on the sea-coast is good, but hot and dry inland. The annual rainfall averages 25 inches.

History.

The Gohel Rājputs, to which tribe the chief of Bhaunagar belongs, are said to have settled in the country about the year 1260 under Sajakji, from whose three sons—Rānoji, Sāranji, and Shāhji—are descended respectively the chiefs of Bhaunagar, Lāthi, and Pālitāna. The Vala State also is an offshoot from Bhaunagar. The town of Bhaunagar was founded in 1723 by Bhausinghji, grandfather of Wakhat Singh, who succeeded to the chiefship in 1772. Bhausinghji, his son Rāwal Akherājji, and his grandson Wakhat Singh, took pains to improve the trade of their country and to destroy the pirates who infested the neighbouring seas. An intimate connexion was thus formed between Bhaunagar and the Bombay Government. In 1759 the British acquired the right to a fourth share in the customs of the port of Bhaunagar from the Sīdī of Surat, to whom it had been granted by Bhausinghji as the price of protection from the Nawāb of Cambay. In 1771 Rāwal Akherājji assisted the Bombay Government in reducing Talāja and Mahuva, which were occupied by piratical Kolis. After the conquest of Talāja, the fort was offered to Akherājji by the Bombay Government; but he refused to accept it, and it was in consequence made over to the Nawāb of Cambay. Wakhat Singh, however, after his accession, dispossessed the Nawāb of the fort, which, under an engagement arranged by the British Government in 1773, he was allowed to retain on paying a sum of Rs. 75,000. The boundaries of the Bhaunagar State were largely increased by various other

acquisitions made by Wakhat Singh previous to the settlement of Kāthiāwār.

When Gujarāt and Kāthiāwār were divided between the Peshwā and the Gaikwār, the western and larger portion of the Bhaunagar possessions were included in the Gaikwār's share; while the eastern and smaller portion, including Bhaunagar itself and the original estates of the family in Sihor, fell to the Peshwā, and formed part of the districts of Dhandhuka and Gogha, which the Peshwā ceded to the British Government under the Treaty of Bassein. At the time of the settlement of Kāthiāwār, therefore, part of the Bhaunagar possessions had already become British territory, while part remained under the Gaikwār. The revenue (*jamā*) demanded from the British portion was Rs. 11,650, and that payable to the Gaikwār was fixed at Rs. 74,500. But as it was expedient to consolidate in the hands of the British Government the various claims over Bhaunagar, an agreement was made with the Thākur's consent for the transfer of the Gaikwār's tribute in Bhaunagar to the British Government, which was accordingly included in the cessions made in 1807 by the Gaikwār for the support of a contingent force. In 1840 the British abolished the mint at Bhaunagar, where copper money had been previously coined. As compensation for this, a sum of Rs. 2,800 a year was granted to the Thākur. A further sum of Rs. 4,000 was given to him, in consideration of his resigning all claims to a share in the land or sea customs of Gogha. The Thākur also subscribed the usual engagements, exempting from duty vessels putting into his port under stress of weather.

After the cession of Dhandhuka and Gogha, the chief of Bhaunagar was tacitly permitted to exercise the same powers as before in the portion of his land which fell within those districts. But in consequence of a serious abuse of power, the estates were in 1816 placed under the jurisdiction of the English courts. The Thākur never ceased to complain of this change; and eventually, after full investigation, an agreement was concluded, by which the Thākur's revenue in his British estates was fixed at Rs. 52,000 in perpetuity. In 1866 certain villages in this portion of the State were removed from the jurisdiction of the revenue, civil, and criminal courts of the Bombay Presidency, and transferred to the supervision of the Agent to the Governor in Kāthiāwār. In 1873 the Bhaunagar State made an agreement with the British Government for the construction of a telegraph line between Bhaunagar and Dholera.

The Thākur Sāhib of Bhaunagar is entitled to a salute of 11 guns, and was created a K.C.S.I. in 1904. He has received a *sanad* authorizing adoption, and the succession follows the rule of primogeniture.

The population of Bhaunagar at the last four enumerations was:

(1872) 428,500, (1881) 400,323, (1891) 467,282, and (1901) 412,664, showing a decrease of 12 per cent. during the last decade owing to the famine of 1899–1900. The density of population is 144 persons per square mile. In 1901 Hindus numbered 350,886; Musalmāns, 40,323; and Jains, 20,761. The State contains 11 towns and 655 villages. The capital is BHAUNAGAR TOWN.

Population.

More than one-half of the total area consists of *regar* or black cotton soil, the remainder being light and sandy. Of the total cultivable area of 1,092 square miles, 983½ were cultivated in 1903–4, of which 108 square miles were irrigated. Water is obtained from wells and rivers. Two experimental plantations, containing 44,000 trees of various kinds, are maintained at Mahuva and Sihor. The chief products are grain, cotton, and salt; and the chief manufactures are oil, copper and brass vessels, and cloth. The State contains 11 cotton-presses, 9 ginning factories, and one spinning and weaving mill. The quantity of cotton produced is very considerable, and forms one of the chief sources of wealth of the State. The exports from its various ports in 1903–4 were returned at a total value of 130 lakhs; imports at 91 lakhs. The only important forests are the Sihor forests, chiefly of thorny acacias, with a few tamarind and *nīm* trees. Horse-breeding is carried on with ten stallions, and mule-breeding with one Italian donkey stallion. At the veterinary hospital 1,211 animals were treated in 1903–4. Roads have been constructed from Bhaunagar to Vartej and Gogha, and to Dhasa. About 120 miles of the Bhavnagar-Gondal Railway runs through the State, the net earnings since the line was opened being 11 lakhs in excess of capital outlay. The chief has proposed to construct a metre-gauge line between Rānpur and Dholka via Dhandhuka.

Agriculture.

Bhaunagar ranks as a first-class Tributary State in Kāthiāwār. The chief exercises powers of life and death over all persons, the trial of British subjects for capital offences requiring the previous permission of the Agent to the Governor; and he pays a tribute of 1½ lakhs jointly to the British Government, the Gaikwār, and the Nawāb of Junāgarh. The income of the State in 1903–4 was 31 lakhs, excluding the earnings of the Bhavnagar Railway, which amounted to 8 lakhs. The expenditure was 35 lakhs, of which more than 4 lakhs represents expenditure on railways. The State does not levy transit dues. A revenue survey is being carried out in 161 villages. A State savings bank was established in 1902, which has a current deposit of more than 2 lakhs, and which lent and recovered 4 lakhs in 1903–4. There are ten municipalities, the largest of which is Bhaunagar town, with a total income of Rs. 47,000 in 1903–4. The State maintains a regiment of Imperial Service Lancers, 256 strong,

Administration.

51 cavalry, and 285 infantry, as well as a police force of 551, of whom 47 are mounted. Including an Arts college attended by 74 students and a high school, there were in 1903-4 148 educational establishments, attended by 12,462 pupils, of whom 2,311 were girls. Besides these, indigenous schools contain 2,166 pupils. The State has founded 57 scholarships of the aggregate monthly value of Rs. 457. The two hospitals, one of which is for plague patients, and 17 dispensaries in the State, were attended in 1903-4 by 125,898 patients, of whom 1,103 were in-patients. In the same year 7,000 persons were vaccinated.

Bhaunagar Town (*Bhāvnagar*).—Town and port in the Gulf of Cambay, and capital of the State of the same name in Kāthiāwār, Bombay, situated in 21° 45′ N. and 72° 12′ E. Population (1901), 56,442: namely, 40,677 Hindus, 4,463 Musalmāns, 10,681 Jains, 248 Christians, and 373 Pārsīs. The town was founded in 1723 by Bhausinghji, and rapidly rose to influence under a line of princes who encouraged commerce and suppressed the piratical communities that infested the Gulf of Cambay. It has a good and safe harbour for shipping of light draught, and carries on an extensive trade as one of the principal markets and harbours of export for cotton in Kāthiāwār. It possesses a spinning and weaving mill with 14,288 spindles and 240 looms, and several steam presses. The harbour is difficult of access, being approached by a winding creek. The total sea-borne trade in 1903-4 was valued at 221 lakhs: namely, exports 130 lakhs and imports 91 lakhs. Besides manufactures of several kinds, such as cloth, sugar-candy, boxes bound in brass and iron, carriages, turbans, &c., there are a Mangalore tile and brick factory, a saw-mill, an ice factory, and iron foundry. The town is administered by a municipality, with an income exceeding Rs. 44,000 in 1903-4. The Gauri Shankar lake, or the Ganga Talao, constructed at a cost of nearly 6 lakhs, is the chief source of water-supply for the town and shipping. Besides numerous temples and mosques the town has two churches, a Christian burial-ground, and a 'tower of silence.' Of the several public buildings, the Victoria Jubilee water-works, the Percival market and the Percival fountain, the Peile gardens and the Victoria Park, the Court of Justice, and the high school are prominent. The town contains two hospitals, one of which is for plague patients only.

Bhavāni River.—A picturesque perennial river of Southern India, rising in the Attapādi valley in Malabar District, in 11° 14′ N. and 76° 32′ E., and traversing from west to east for 105 miles the *tāluks* of Satyamangalam and Bhavāni in Coimbatore till it falls into the Cauvery near Bhavāni town. The confluence is considered very holy and is frequented by pilgrims. Deriving its supplies principally from the south-west monsoon, the Bhavāni receives its first freshes about

the end of May, is at its highest flood from June to August, and thenceforward, with occasional floods in the north-east monsoon, gradually subsides. It is fed by a number of small tributaries from the slopes of the Nīlgiris on the north and the more open country to the south. The most considerable of these is the Moyār, which drains the northern side of the Nīlgiri plateau, and joins the Bhavāni near Kottamangalam. The Bhavāni is crossed by the *ghāt* road and the metre-gauge rack railway to the Nīlgiris at Mettupālaiyam, and by road bridges at Satyamangalam and Bhavāni. Twice recently it has come down in considerable floods: in 1882 great damage was done along its banks, and in 1902 the road bridge at Mettupālaiyam was carried away. Otters are found in it, and it is famous for its mahseer and other fish. It affords the best irrigation in Coimbatore District by the Tādampalli, Arakkan kottai, and Kalingarāyan channels, which together water 39,000 acres; and it has given its name to a considerable irrigation project which has been much discussed. This consists in forming a reservoir about 4 miles above Satyamangalam to contain 27,000 million cubic feet of water. Opinion is divided as to how this water should be used; but the project in its present form does not contemplate any extension of irrigation in Coimbatore District, but provides for the water being utilized to supplement the Cauvery irrigation in Tanjore during September and October. The question has arisen whether a reservoir could not be more advantageously constructed lower down on the Cauvery itself, and this is still under investigation. The forests which protect the head-waters of the Bhavāni are largely owned by private individuals; and unless they are carefully preserved, the effect on the water-supply for irrigation from the river may in time be very serious.

Bhavāni Tāluk.—North-eastern *tāluk* of Coimbatore District, Madras, lying between 11° 23′ and 11° 57′ N. and 77° 25′ and 77° 51′ E., with an area of 715 square miles. It is bounded on the east and south by the Cauvery and Bhavāni rivers, which unite at its south-east corner. In the north and west large portions are covered by the Bargūr hills, and consequently the *tāluk* is poorly supplied with roads. It lies off the railway, and has only one considerable town, BHAVĀNI (population, 8,637), the head-quarters, and 62 villages. The population rose from 119,869 in 1891 to 145,982 in 1901, showing an increase of nearly 22 per cent., which is greater than in any other *tāluk* in the District. The proportion of Christians is above the District average, being between 2 and 3 per cent. of the total population. Muhammadans are much fewer. The number of persons able to read and write is small as compared with other *tāluks*. The demand for land revenue and cesses in 1903-4 was Rs. 1,55,000. More than half the *tāluk* is covered with forest. Of the cultivable area about a tenth is usually irrigated and a fourth is unoccupied. *Cambu*

is much more widely grown than any other crop, and *cholam* and *rāgi* are also raised in fair quantities. The rainfall averages 29 inches annually at Bhavāni town, but is less in the west of the *tāluk*. A hard and valuable iron is smelted in small quantities, and corundum is worked irregularly at Salangaippālaiyam; there is also a brisk trade in cloths and forest produce at Bhavāni; but otherwise there are no industries worth mentioning. The Bargūr cattle, bred in the hills of the same name, are of medium size, and, though rather intractable, are attractive in appearance, fast, and strong.

Bhavāni Town.—Head-quarters of the *tāluk* of the same name in Coimbatore District, Madras, situated in 11° 27′ N. and 77° 40′ E., 9 miles north of Erode, at the confluence of the Bhavāni and Cauvery rivers. Population (1901), 8,637. It was for a short time at the beginning of last century the head-quarters of the northern portion of the District, but is now important only as a place of pilgrimage, its sanctity being due to its position at the junction of the two rivers. Both of these are crossed here by fine masonry bridges, as the main road from Madras to Calicut once passed this way. That over the Cauvery was originally built in 1847, but was washed away almost at once, and was reconstructed in 1851. The temple of Sangama Iswara ('the god of the confluence') is well sculptured and is much revered. The old fort is said to have been built by a local chieftain who held it under the kings of Madura. The town contains a large number of Brāhmans and other persons attached to the temple, and is notorious for petty intrigues. Good cotton cloth and carpets are made here; the latter took a first prize at the Madras Exhibition in 1883. The place is said to have once been famous for its dyes.

Bhāvnagar.—Native State and town in Kāthiāwār, Bombay. *See* BHAUNAGAR.

Bhavsari (*Bhosari*, also known as Bhojpur).—Village in the Haveli *tāluka* of Poona District, Bombay, situated in 18° 37′ N. and 73° 53′ E., at the first stage on the Nāsik road, about 8 miles north of Poona city. Population (1901), 1,697. The place is remarkable for a number of large rude stones forming enclosures to the east, south, and west of the village, and numerous stone slabs bearing roughly carved figures of men fighting, cattle raids, dead men, and heavenly damsels. As far as they have been examined, none of these stones, whether found in mounds, lines, or walls, has any writing. The discovery of pieces of bones in one of the mounds supports the view that the circles and heaps of stones and the solitary standing stones are funeral monuments. Without inscription or the discovery of further relics it is impossible to fix the age of these monuments, even within wide limits. There seems no reason to doubt that they are old, certainly older than the Musalmāns, and probably older than the Silāhāras or the Yādavas (850–1310). The

absence of any signs of a mound, in many cases, and the absence of relics in several of the mounds, suggest that some of these monuments are cenotaphs raised to people whose bodies were buried or burnt in some other place. The carved battle-stones show that, till Musalmān times, Bhavsari continued a favourite place for commemorating the dead; and the number of shrines to Satvai, Khandoba, Mhasoba, Chedoba, Vīr, and other spirits, seems to show that the village is still considered to be haunted by the dead. An inscription on a rough stone attached to a wide burial-mound in Sopāra near Bassein proved that it was raised about 200 B.C. in honour of a person of the Khond tribe. Khond is the same as Ghond and apparently as Kol. It survives as Kod, a surname among Kunbīs in Thāna and elsewhere, and Marāthās. So far as is known, the name does not occur in the Northern Deccan. The mention of Khonds on the Sopāra stone, and the reverence for the dead which is so marked a characteristic of the Bengal Kols and the Godāvari Kolīs, suggest that these rude monuments belong to the Kol or Kolarian under layer or base of the Deccan population. Stone monuments like those at Bhavsari have not yet been made the subject of special search. They are found scattered over most of the Deccan.

Bhāwalpur.—Native State and town in the Punjab. *See* BAHĀWALPUR STATE.

Bhawāni.—*Tahsīl* and town in Hissār District, Punjab. *See* BHIWĀNI.

Bhawānigarh (or Dhodān).—North-western *tahsīl* of the Karmgarh *nizāmat*, Patiāla State, Punjab, lying between 29° 48′ and 30° 24′ N. and 75° 57′ and 76° 18′ E., with an area of 499 square miles. The population in 1901 was 140,309, compared with 140,607 in 1891. It contains one town, SAMĀNA (population, 10,209), and 213 villages. The head-quarters are at the village of Bhawānigarh or Dhodān. The land revenue and cesses amounted in 1903-4 to 3 lakhs.

Bhāyāvadar.—Town in the State of Gondal, Kāthiāwār, Bombay, situated in 21° 51′ N. and 70° 17′ E., about 15 miles north-west of Dhorāji, a station on the Bhavnagar-Gondal-Junāgarh-Porbandar Railway. Population (1901), 5,918. At the collapse of the Mughal empire it fell into the hands of the Desais, who about 1753 sold it to the Jādeja Hāloji of Gondal.

Bheels.—Tribe in Western India. *See* BHĪLS.

Bhelsa.—*Zila* and town in Gwalior State, Central India. *See* BHĪLSA.

Bhelsarh.—Town in the District of Balliā, United Provinces. *See* BHALSAND.

Bhera Tahsīl.—*Tahsīl* of Shāhpur District, Punjab, lying between 31° 55′ and 32° 37′ N. and 72° 43′ and 73° 23′ E., with an area of

1,178 square miles. It is bounded on the north by the Jhelum river, which divides it from Jhelum District, and on the south-east by the Chenāb. The country between the riverain lowlands on either side lies at a higher level, but the rich soil of the Jhelum valley is in marked contrast to the light sandy loam of the Chenāb. The soil of the intervening Bār tract is a good strong loam. The population in 1901 was 194,469, compared with 195,585 in 1891. The *tahsīl* contains the towns of BHERA (population, 18,680), the head-quarters, and MIĀNI (7,220); and 294 villages. The land revenue and cesses amounted in 1903-4 to 4·7 lakhs.

Bhera Town.—Head-quarters of the *tahsīl* of the same name in Shāhpur District, Punjab, situated in 32° 28′ N. and 72° 56′ E., on the left bank of the Jhelum, at the terminus of the Bhera branch of the North-Western Railway. Population (1901), 18,680. The original city, which lay on the right bank, was identified by Sir Alexander Cunningham with the capital of Sophytes, contemporary of Alexander the Great; but recent authorities have shared the doubts he afterwards entertained as to the correctness of this theory. Bhera was sacked by Mahmūd of Ghazni, and two centuries later by the armies of Chingiz Khān. The history of the old town closes in 1519, when it was held to ransom by Bābar. Its importance is shown by the fact that the ransom was fixed at 2 lakhs, and tradition avers that shortly afterwards it was destroyed by the hill tribes. The new town was founded in or about 1540 round the fine mosque and tomb of a Muhammadan saint. The mosque has lately been restored. Bhera was the centre of a *mahāl* under Akbar, and was plundered and laid waste by Ahmad Shāh's general, Nūr-ud-dīn, in 1757. It was repopulated by the Sikh chieftains of the Bhangī confederacy, and has greatly improved under British rule. It is the largest and most prosperous commercial town in this part of the Province, having a direct export trade to Kābul, the Derajāt, and Sukkur, and importing European goods from Karāchi and Amritsar. Ornamental knives and daggers are made in the town, and its jade-work and wood-carving are widely known. It has also a long-established felt industry. The municipality was created in 1867. The income during the ten years ending 1902-3 averaged Rs. 22,400, and the expenditure Rs. 22,900. In 1903-4 the income was Rs. 28,500, chiefly from octroi; and the expenditure was Rs. 26,100. The town possesses an Anglo-vernacular high school, managed by the Educational department, and an unaided Anglo-Sanskrit high school, besides a Government dispensary. A vernacular newspaper, the *Dost-i-Hind*, is published in the town.

Bherāghāt.—Site of the MARBLE ROCKS on the Narbadā in Jubbulpore District, Central Provinces.

Bhīkhi.—Southern *tahsīl* of the Anāhadgarh *nizāmat*, Patiāla State,

Punjab, lying between 29° 45′ and 30° 14′ N. and 75° 15′ and 75° 50′ E., with an area of 622 square miles. The population in 1901 was 128,965, compared with 119,354 in 1891. The *tahsīl* contains 172 villages, of which Bhīkhi is the head-quarters. The land revenue and cesses amounted in 1903–4 to 2·7 lakhs.

Bhīl Tribes, The.—The name Bhilla seems to occur for the first time about A. D. 600. It is supposed to be derived from the Dravidian word for a bow, which is the characteristic weapon of the tribe known as Bhīl. The Bhīls seem to be the 'Pygmies' of Ctesias (400 B.C.), and the *Poulindai* and *Phyllitae* of Ptolemy (A.D. 150); but the name by which they are at present known cannot be traced far back in Sanskrit literature. The Pulinda tribe is mentioned in the Aitareya Brāhmana and in the edicts of Asoka, but its identification with the Bhīls rests on much later authorities. The Bhīls are often mentioned as foes or allies in the history of Anhilvāda, and they preceded the Musalmāns, both at Ahmadābād and Chāmpāner. To this day it is necessary to the recognition of certain Rājput chiefs that they should be marked on the brow with a Bhīl's blood. In unsettled times the Bhīls were bold and crafty robbers, and the Marāthās treated them with great harshness. The first step to their reclamation was the formation of the Bhīl Agencies in the Khāndesh District of the Bombay Presidency in 1825.

The home of the Bhīls is the hilly country between Abu and Asīrgarh, from which they have spread westward and southward into the plains of Gujarāt and the Northern Deccan, and lately, under pressure of famine, even to Sind. The Bhīls have been settled in this part of India from time immemorial. They are found in considerable numbers only in the Bombay Presidency, Rājputāna, and Central India. At the Census of 1901 the Bhīls numbered 1,198,843, distributed as follows:—

Bombay	569,842
Rājputāna	339,786
Central India	206,934
Elsewhere	82,281

Some of the Bhīl clans have advanced a claim to be considered as Rājputs, but it is only within the last eighty years that the settlement and opening up of the country has tended strongly to merge them in the general Hindu population. It is not easy to describe a tribe that includes every stage of civilization, from the wild hunter of the hills to the orderly and hard-working peasant of the lowlands. A further difficulty arises from the fact that the name Bhīl is often given to half-wild tribes, such as Chodhrās, Dhānkās, Dhodias, Kāthodis, Konknās, and Vārlis, who do not seem to be true Bhīls. The typical Bhīl is small, dark, broad-nosed, and ugly, but well built and active. The men wear a cloth round their long hair, another round their waist, and

a third as a wrap, and carry a bow and arrows or an axe. The women dress like low-class Hindus, but plait their hair in three tails, and wear large numbers of brass or tin rings on their arms and legs. They live in huts of wattle-and-daub surrounded by a bamboo fence, each standing by itself on high ground. Each settlement has a hereditary headman (*gamti*), who is under the chief (*naik*) of the district, to whom all owe military service. When necessity arises, they are gathered by a peculiar shrill cry known as *kulki*. Scattered over all these local divisions are more than 40 *kūls* or exogamous clans, each of which has a totem tree or animal. The true Bhīls do not appear to have any endogamous sub-tribes, though such seem to have arisen in Khāndesh owing to differences of dialect, the adoption of Hindu customs in the matter of food, or conversion to Islām. Whether the Bhīls ever possessed any language of their own is unknown. At present they all speak a mixed dialect of Gujarātī and Rājasthānī, with some borrowing from Marāthī, and a slight admixture of Mundā words.

The Bhīls are hunters and woodmen ; but most now grow a little rice or maize to eke out their diet of game, roots, and fruits, and keep goats and fowls for feasts and sacrifices. In times of difficulty, they will eat beef, but not the horse, rat, snake, or monkey. They are truthful and honest, but thriftless, excitable, and given to drink. They pay no respect to Brāhmans or to the Hindu gods, except Devī, nor do they build temples. They reverence and swear by the moon (Bārbij), but chiefly worship Vāghdeo the 'tiger-god' and ghosts, for which every settlement has its *devasthān* or god-yard with wooden benches for the ghosts to perch on. Here they offer goats and cocks with much feasting and drinking, and dedicate earthen horses and tigers in fulfilment of a vow. They have mediums called *badva*, of their own tribe, whose business it is to find the spirit or the witch that has caused any calamity. Witches are detected by swinging the suspected woman from a tree or by throwing her into a stream. Each group of villages has a *dholī* or bard, who supplies music at weddings and funerals, and keeps the genealogies of the leading Bhīls. Each village also has a *rāval*, whose chief duty is to officiate at a funeral feast (*kaita*). They celebrate the Holī at the spring equinox with feasting and drinking, at which every man of the village must be present. At this festival fire-walking is practised in fulfilment of vows, and a sort of mock fight takes place between men and women. The Dasahra or autumn equinox and the Divāli are kept with dance, song, and feasting. In the month of Shrāvan a stone representing the small-pox goddess is worshipped, and the first of the young grass is cut, with feasting in the god-yard. The harvest (October–November) is marked by a feast in honour of Bābādeo, the 'father-god,' who has a special seat at Deogarh Bāriya in the Rewā Kāntha Agency, where the *badvas* resort for a month in every twelfth year.

Occasional sacrifices known as *in* or *jatar* are offered to stay an epidemic. Another method is to pass on a scapegoat and a toy cart, into which the disease has been charmed, from village to village. The women steal and kill a buffalo from the next village as a charm for rain. The chief domestic rites take place at marriage and death. Marriage is commonly between adults, and may be arranged either by themselves or by the parents. There is a sort of Gretna Green at Posina in Mahī Kāntha. Betrothal is sealed with draughts of liquor. A bride price is usual, but may be paid off by personal service for a term of years, during which husband and wife are allowed to live together. Sexual licence before marriage is connived at, and the marriage tie is loose; not only is divorce or second marriage easy for the husband, but a wife may live with any other man who is willing to keep her and to repay to her husband his marriage expenses. Widow marriage is common, especially with the husband's younger brother. The dead are disposed of either by burning or by burial. The former method is the commoner, but the latter seems the more primitive, and is always employed in the case of young children or those who have died of small-pox. Cooked food is placed on the bier and left half-way to the burning or burial-ground. In case of burial the head is laid to the south and food put in the mouth. The grave of a chief is opened after two months and the face of the dead man painted with red lead, after which the grave is again closed. A stone carved with a human figure on horseback is set up in the god-yard to the memory of any leading Bhīl. A death-dinner (*kaita*) takes place as soon after the death as the family can afford it, the guests sometimes numbering two or three thousand. Throughout the feast the *rāval* sings songs, and offerings are made to a small brazen horse which is held on a salver by the chief mourner, and is the vehicle for the ghost of the dead man. The Bhīls believe firmly in omens, witchcraft, and the evil eye, to which last they trace most cases of sickness.

In Central India there are more than 100 exogamous divisions of the Bhīls. They may in theory marry freely outside the exogamous section, but in practice the Mānpur and Sātpurā Bhīls rarely intermarry. Tattooing is common, but the sept totem may not be represented. The hereditary headman is known as *tarvi*. When performing the death ceremony, he wears a *janeo*, made of coarse thread. This is the only occasion on which the sacred thread is worn. The Bhīls here seldom eat beef.

In Rājputāna the Bhīls differ little from the main body of the tribe found within the limits of the Bombay Presidency. They are most numerous in the south and south-west, but are found everywhere except in the eastern States. In 1901 two-thirds of them were in the two States of Mewār and Bānswāra. The practice of marking the

brow of a new Rājput chief, alluded to above, was formerly followed in Mewār, Dungarpur, and Bānswāra, but fell into desuetude in the fifteenth century. The reclamation of the Rājputāna Bhīls was contemporaneous with the formation of the Khāndesh Bhīl Agencies, and was followed sixteen years later by the establishment of the Mewār Bhīl Corps, which was one of the few native regiments in Rājputāna that stood by their British officers during the Mutiny. Service in the Mewār Bhīl Corps is now so popular that the supply of recruits largely exceeds the demand. The Mewār Bhīls consider themselves superior to the Central Indian Bhīls, and will neither eat nor intermarry with them. With the Gujārat Bhīls, on the other hand, intermarriage is permitted.

The Bhilālas, or mixed Bhīl and Rājput tribes, numbered 144,423 in 1901, being found for the most part within the limits of Central India, in the States of the Bhopāwar Agency. The higher classes of Bhilālas differ in no essential points from Hindus of the lower orders, on whom, however, they profess to look down. They have neither the simplicity nor the truthfulness of the pure Bhīl. They are the local aristocracy of the Vindhyas, and the so-called Bhūmiā landowners in Bhopāwar are all of this class, the Rājā of Onkār Māndhāta in the Central Provinces being regarded as their leading representative. In Central India the Bhilālas consist of two main groups, the Badi and Chhoti, which do not intermarry, but are divided into numerous exogamous septs. They eat flesh, except beef, but their usual food is millet bread and jungle produce, with *rabri* or maize boiled in buttermilk. Like the Bhīls, they are firm believers in omens and witchcraft. Their most sacred oath is by Rewā *māta*, the tutelary goddess of the Narbadā river.

Bhilavdi (*Bhilaudi*).—Village in the Tāsgaon *tāluka* of Sātāra District, Bombay, situated in 16° 59′ N. and 74° 28′ E., on the left bank of the Kistna, facing the village of Akalkhop, 9 miles west of Tāsgaon. Population (1901), 7,651. There is a large export trade in *ghi*, and the inhabitants are in comfortable circumstances. Near by is a temple of Bhavaneshwari, which is reputed to work miraculous cures. The village contains a good primary school.

Bhilodia Chhatrasinghji.—Petty State in Rewā Kāntha, Bombay.

Bhilodia Motisinghji.—Petty State in Rewā Kāntha, Bombay.

Bhilolpur.—Town in the Samrāla *tahsīl* of Ludhiāna District, Punjab. *See* Bahlolpur.

Bhilsa Zila.—A district of Gwalior State, Central India, lying between 23° 51′ and 24° 4′ N. and 77° 25′ and 78° 21′ E., with an area of 1,625 square miles. This tract was of some importance in early days, and it contains considerable remains of archaeological and historical interest, especially at Bhīlsa, Gyāraspur, Udayapur,

UDAYAGIRI, and BARO. In the time of Akbar it was one of the *mahāls* of the *sarkār* of Raisen in the *Sūbah* of Mālwā. The population in 1901 was 120,189, giving a density of 74 persons per square mile. The district contains one town, BHĪLSA (population, 7,481), the head-quarters; and 708 villages. It is divided into two *parganas*, with head-quarters at Bhīlsa and Bāsoda. The land revenue is Rs. 3,32,000. The district, which lies on the Mālwā plateau, is well drained by the Betwā and its numerous tributaries. It is for the most part covered with fertile black soil, producing excellent wheat and tobacco; but on the eastern border an arm of the Vindhyas runs from north to south, in which the sandstones are well exposed. The forest along this range is 'reserved.' The mediatized holding of Agra-Barkhera (*see* GWALIOR RESIDENCY) is in this district.

Bhīlsa Town (*Bhelsa*).—Head-quarters of the district of the same name in Gwalior State, Central India, situated in 23° 31′ N. and 77° 49′ E., on the Midland section of the Great Indian Peninsula Railway, 535 miles from Bombay. Population (1901), 7,481. The town stands on the east bank of the Betwā river, 1,546 feet above the level of the sea. The existing buildings are entirely Muhammadan in character, though numerous remains of an earlier period have been used in constructing the city wall, mosques, houses, and wells. The houses are usually built of the local sandstone, and are substantial in appearance; but many are empty, and the whole town has an air of departed grandeur. The wall is pierced by three gates: the Raisen Gate on the south, the Besh Gate on the west, and the Gandhi Gate on the north-east. The only buildings of importance are the Vijaya Mandir and a modern temple erected in 1833 by a former *Sūbah*. The Vijaya Mandir, though still known by this name, is in fact a mosque, which was erected on the site of the former temple by Aurangzeb in 1682. There is still, however, enough left of the fine platform and general plan of the temple to show that it must originally have been a building of considerable merit. On the Lohāngi rock which overlooks the town stand several buildings, a tomb to Lohāngi Pīr, and a small mosque with two inscriptions, erected respectively by Mahmūd Khiljī I of Mālwā, dated 1460, and by Akbar, dated 1583.

The remains in the neighbourhood are more than ordinarily interesting. The earliest consist of a series of sixty Buddhist *stūpas* or monumental tumuli, many of which contained relic caskets. These buildings date from the third century B.C. to the first century A.D., the most important being that at SĀNCHĪ, while others have been found at the adjacent villages of Andherī, Bhojpur, Sātdhāra, and Sonārī in Bhopāl State, all lying within a radius of 12 miles of Bhīlsa. Fergusson remarks that—

'We are not justified in assuming from the greater extent of this group, as now existing, that it possessed the same pre-eminence in Buddhist

days. It may only be that, situated in a remote and thinly peopled part of India, they have not been exposed to the destructive energy of opposing sects of the Hindu religion.'

It is possible, however, that the central position of Bhīlsa added to its importance. It lies where the old route from Srāvastī to Paithana crossed that from Magadha to Sovīra; and, as other examples show, such places were always favourite sites for the erection of *stūpas*.

North-west of Bhīlsa, in the fork formed by the Betwā and Besh rivers, is the site of the old city of Beshnagar, identified with the Vessanagara or Chaityagiri of the Pāli records. The city appears to have existed in the time of Asoka, if not earlier. Coins of the Ujjain type, of the Western Satraps, the Nāgas of Narwar, and the Guptas have been found here. Tradition connects the place with Rājā Rukmāngada, who, neglecting his own wife for the Apsara Visva, named the city Visvanagar after her. A festival called the Rukmāngada Ekādasi is held here yearly in Kārtik (October). Fragments of Buddhist railings and other remains are still lying on the site, though many carved stones appear to have been taken to Bhīlsa for building purposes. One railing is inscribed in characters of the Asoka period.

By Hindus the town is always called Bhelsa. A fragmentary inscription inserted in the city wall records the erection on the Vetravatī (Betwā) river of a temple to the Sun as Bhaillesha, from which title both forms of the name are derived. In Brāhmanical religious observances the place is called Bhadravati, and is identified with the residence of Yuvanāshva, who supplied the famous horse sacrificed by Yudhishthira. The Jain scriptures use the form Bhadalpur, and regard it as the birthplace of Sītal Nāth, the tenth Tīrthankar, whose birthday is still commemorated here by a yearly feast.

In historical times Bhīlsa, or more probably the older city of Beshnagar or Vessanagara, was a place of importance as early as the days of Asoka (third century B.C.), when the numerous Buddhist monuments in the neighbourhood were erected. If the identification with Vidisha be correct, it subsequently became the capital of Eastern Mālwā, and was the head-quarters of the Sunga prince Agnimitra. Bhīlsa first appears in Muhammadan writings as Mahābalistān in Alberūnī's description of India, where it is said to be in Mālwā, 10 parasangs distant from Ujjain. In 1235 Bhīlsa was attacked and sacked by Altamsh, and in 1290 Alā-ud-dīn captured the town. In 1532 it was plundered by Bahādur Shāh of Gujarāt. Under Akbar it formed the head-quarters of one of the *mahāls* of the *sarkār* of Raisen in the *Sūbah* of Mālwā. The religious intolerance of Aurangzeb led to the destruction of the fine Vijaya Mandir and many other temples in 1682. At the same time the town was renamed Alamgīrpur, but the new name never came into general use. In the eighteenth century it was granted by Sawai Jai

Singh of Jaipur, then governor of Mālwā, to the Nawāb of Bhopāl, but passed soon after into the possession of the Peshwā. It came into Sindhia's hands in 1775, and has since formed part of Gwalior State. A combined British post and telegraph office, a State post office, a school, a *sarai*, and a dispensary are situated in the town.

[A. Cunningham, *Archaeological Survey Reports*, vol. x, p. 34; *Journal of the Bombay Asiatic Society*, vol. xxxi, p. 111; and J. Fergusson, *Indian and Eastern Architecture*.]

Bhīlwāra.—Head-quarters of a *zila* or district of the same name in the State of Udaipur, Rājputāna, situated in 25° 21′ N. and 74° 39′ E., about 80 miles north-east of Udaipur city. Half a mile to the west is the station of Bhīlwāra on the Rājputāna-Mālwā Railway. The town is the second largest in the State, having a population (1901) of 10,346, of whom nearly 75 per cent. are Hindus and 16 per cent. Musalmāns. It is noted for the excellence and durability of its tinned utensils, which are largely exported. There was formerly a mint here, the coins being called Bhīlāri; they are still current in parts of Mewār and, till quite recently, circulated largely in the Sirohi State. A ginning factory and cotton-press, belonging to the Darbār, gives employment to about 600 hands daily during the working season. On an average 12,000 to 13,000 bales (of 400 lb. each) of cotton and wool are pressed yearly, but in 1904 the number was only 3,297. An Anglo-vernacular middle school maintained by the Darbār is attended by 92 boys, while a primary girls' school, kept up by the United Free Church Mission, has about 20 pupils. There are also a combined post and telegraph office and a hospital. In several places in the district garnets and carbuncles are found.

Bhīma (Sanskrit, 'The Terrible,' one of the names of Pārvatī).—A river of Southern India. It rises at the well-known shrine of Bhīmāshankar (19° 4′ N. and 73° 32′ E.) in the Western Ghāts, and flows south-eastwards, with many windings, through or along the boundary of the Bombay Districts of Poona, Sholāpur, and Bijāpur, for about 340 miles, till it enters the Nizām's Dominions, where after a farther course of 176 miles it eventually falls into the KISTNA, about 16 miles north of Raichūr. The first 40 miles of its course lie in a narrow and rugged valley, but farther east the banks are low and alluvial, though broken here and there by dikes of rock. In the dry season the stream is narrow and sluggish. At Rānjangaon the Bhīma receives on the right the combined waters of the Mulā and Muthā from Poona, and about 15 miles farther, on the left bank, the Ghod river from the northern side of the Bhīmāshankar hills. Not far from Tembhurni it is joined on the right bank by the Nīra from the Bhor State, and, after passing the holy city of Pandharpur, receives on the right bank the Mān from the Mahādeo hills, and on the left the Sīna, which rises near

Ahmadnagar. There are important irrigation works on the Muthā, Nīra, and Sīna. Near Wādi junction (Hyderābād State) the Bhīma is joined on the left by the Kāgnā river.

Bhīmāshankar.—Fort in the village of Bhovargiri in the Khed *tāluka* of Poona District, Bombay, situated in 19° 4′ N. and 73° 32′ E., at the source of the Bhīma river, about 30 miles north-west of Khed, possessing a famous temple of Mahādeo, said to be one of the twelve great *lingams* of India. Bhīmāshankar is at the crest of the Western Ghāts, 3,448 feet above sea-level. Here, in a dip in the hill-top, surrounded by three or four wooded heights, is the holy source from which the Bhīma flows in a tiny stream into a cistern. Close to the cistern are two temples of Mahādeo, one old and out of repair and the other modern, commenced by the famous Poona minister Nāna Farnavīs (1764–1800) and finished by his widow. The old temple is a plain, solid structure built of dark stone, with a vaulted roof much like the Norman crypts often found under English cathedrals and abbeys. In the hall or *mandapa* is a rough stone bull, while in the shrine a metal figure with five heads represents the god Bhīmāshankar. Hung on an iron bar supported between two strong stone pillars, to the east of the old temple, is a large bell weighing three to four hundredweight. Embossed on the face of the bell is a minute human figure, perhaps the Virgin Mary, with a Maltese cross above and the figures 1729 below, showing the year in which the bell was cast. The bell is worshipped by the people, and the cross, the human figure, and the date are painted with red pigment. According to tradition, the bell was brought from Vāsind near Kalyān in Thāna, probably from some Portuguese church or convent, about 1739, when Bassein was taken by the Marāthās. The old temple was originally much larger than it now is, as its size was greatly reduced to make room for the new temple of Nāna Farnavīs. The latter is also built of dark stone, and the spire rises in the form of a cone surmounted by a pinnacle. All round the outer wall of the lower part of the temple runs a row of small figures and gods in niches. The east front of the temple has much ornamental work. The rain dripping from the cement over the door has formed fringes of stalactites which harmonize with the fretwork, effectively combining nature and art in the decoration of the temple front. A yearly fair, attended by about 25,000 pilgrims from all parts of the Deccan and the Konkan, is held on Mahāsivrātri in February–March and lasts for two or three days.

Two legends explain the origin of the holiness of Bhīmāshankar. According to one, while Mahādeo was resting after a successful but fatiguing contest with a demon named Tripurāsur, Bhīmak, a mythic king of Oudh of the Solar line, came to do penance before the god and ask forgiveness for wounding, during a hunt, two sages in the form of

a deer. Siva pardoned Bhīmak and offered to grant him any boon he desired. Bhīmak asked that the sweat which was still fresh on Siva's brow might be changed into a river for the good of mankind. According to the other legend, the place first came into repute about the middle of the fourteenth century after Christ. When cutting timber in the Bhīmāshankar valley one Bhati Rao found blood gushing out of one of the trees. Bhati Rao brought his cow to the tree and dropped her milk on the stump and the wound healed in one night. A *lingam* of Mahādeo came out of the tree and Bhati Rao built a shrine on the spot.

Bhīmavaram Tāluk.—Inland *tāluk* of Kistna District, Madras, lying between 16° 25′ and 16° 47′ N. and 81° 19′ and 81° 43′ E., in the delta of the Godāvari. Area, 325 square miles; population (1901), 144,615, compared with 121,994 in 1891. It contains 134 villages, of which Bhīmavaram is the head-quarters. The demand on account of land revenue and cesses in 1903–4 amounted to Rs. 7,69,000. At Undi, in the centre of the *tāluk*, coarse woollen blankets are woven. Rice is almost the only crop.

Bhimbar.—Torrent in Gujrāt District, Punjab. Rising in the Outer Himālayan range, it drains a considerable valley within the mountain region, passes round the Pabbi hills, runs due south for 25 miles, and fertilizes a low fringe of land upon its banks. Four miles north-west of Gujrāt town it loses itself in the surface of the country, moistening and enriching the surrounding plain; it collects again near the village of Hariālwāla, and runs north-west until it reaches the Jalālia nullah, a branch of the Chenāb. The Bhimbar is an unmanageable stream during the rains, but completely dry in the winter months, leaving its bed a broad waste of sand. It is fordable at all points, except for some hours after heavy rains in the hills.

Bhīmkund.—A large earthen basin formed by a waterfall of the Khan river about 70 feet high in the *tāluka* of Dohad, Pānch Mahāls District, Bombay, situated in 22° 45′ N. and 74° 19′ E., 5 miles south of Dohad. Here, four days before the Holī festival (March), come thousands of Bhīls, some of them from considerable distances. Those who have during the year lost friends, relations, or parents, bring their ashes with them and throw them into the pool. Then they wash, and, going to Brāhmans, who are always present in great numbers, have a red spot marked on the brow, and in return give some small present in money or grain. Then drinking begins, and, if money lasts so long, is kept up for about a fortnight.

Bhimora.—Petty State in Kāthiāwār, Bombay.

Bhimsenā.—River in Sylhet District, Assam. *See* Surmā.

Bhīmthadi.—*Tāluka* of Poona District, Bombay, including the petty subdivision (*petha*) of Dhond, lying between 18° 2′ and 18° 40′ N. and 74° 9′ and 74° 51′ E., with an area of 1,036 square miles. It contains

one town, Bārāmati (population, 9,407), the head-quarters; and 128 villages, including Pandare (5,254). The population in 1901 was 123,568, compared with 140,281 in 1891. The density, 119 persons per square mile, is much below the District average. The demand for land revenue in 1903-4 was 2·5 lakhs and for cesses Rs. 17,500. The only hill of note is that occupied by the ancient temple of Bhuleshwar. The flat hill-tops have usually a surface of shallow black soil strewn with stones. Many villages near the Bhīma and Nīra rivers possess deep rich black soil. The Muthā canals water a considerable area of the *tāluka*. The climate is dry and airy. The annual rainfall varies from 19 inches at Dhond to 23 in Bārāmati.

Bhind Zila.—North-eastern district of the Gwalior State, Central India, lying between 23° 33′ and 26° 48′ N. and 78° 33′ and 79° 8′ E., with an area of 1,554 square miles. It is bounded on the north and north-east by the Chambal river, which separates it from the British Districts of Agra and Etāwah; on the east by the Pahūj river, which separates it from Jālaun and Jhānsi Districts; on the south by the Datiā State and Jhānsi District; and on the west by the Gwalior Gird district. The population in 1901 was 394,461, giving a density of 254 persons per square mile. The district contains two towns, Bhind (population, 8,032), the head-quarters, and Bhānder (5,133); and 819 villages. It is divided into four *parganas*, with head-quarters at Bhind, Mahgawān, Lahār, and Bhānder. The land revenue is Rs. 11,65,000. The soil is fertile, and the district is well drained by the Chambal and Sind rivers and the tributary streams of the Kunwārī and Pahūj.

Bhind Town.—Head-quarters of the district of the same name in Gwalior State, Central India, situated in 26° 33′ N. and 78° 48′ E., at the terminus of the Gwalior-Bhind branch of the State Railway. Population (1931), 8,032. Bhind is locally known as Bhind-Bhadāwar, having been originally the chief seat of the Bhadauria Rājputs, a branch of the Chauhān clan, who claim to have held it for twenty-two generations. In the eighteenth century it fell to Sindhia. The town contains several buildings of interest and a lake, the Gauri Tāl, surrounded by fine *ghāts*, on the bank of which stands the temple of Vyankateshwar Mahādeo. A dispensary, a jail, a school, an inspection bungalow, a State post office, and the usual offices are also situated here. There are two ginning factories and a cotton-press in the town. The export of cotton and the manufacture of brass-ware form the staple industries. Local affairs are managed by a municipality constituted in 1902, the income being about Rs. 800.

Bhindar.—Chief town of an estate of the same name in the State of Udaipur, Rājputāna, situated in 24° 30′ N. and 74° 11′ E., about 32 miles east-by-south-east of Udaipur city. The town, which is walled and surrounded by a ditch, contains (1901) 5,172 inhabitants,

of whom over 67 per cent. are Hindus and about 19 per cent. Jains. The estate includes the town and 101 villages, and is held by one of the first-class nobles of Mewār, who is styled Mahārāj, and is the head of the Shaktāwat family of the Sesodia clan of Rājputs. The income of Bhindar is Rs. 48,000, and a tribute of about Rs. 3,200 is paid to the Darbār.

Bhingā.—Town in the District and *tahsīl* of Bahraich, United Provinces, situated in 27° 42′ N. and 81° 56′ E., near the Rāptī. Population (1901), 5,972. It is said to have been founded in the sixteenth century, but was an unimportant village until acquired by Bhawānī Singh Bisen, a brother of the Rājā of Gondā, about 1720. An old fort is the ancestral home of the *talukdār*, who owns a large estate in the neighbourhood; but the present *talukdār*, the Rājā of Bhingā, lives in retirement at Benares. The town contains a dispensary and a branch of the American Methodist Mission. It was administered as a municipality from 1883 to 1904, when its constitution was changed to that of a 'notified area.' During the ten years ending 1901 the income and expenditure averaged Rs. 3,000. In 1903–4 the income was Rs. 6,500, including a grant of Rs. 2,500 from Provincial revenues; and the expenditure was Rs. 5,000. The principal trade is in grain, which is sent by road to Bahraich. An increasing amount of timber is exported, chiefly down the Rāptī. There are two schools with 200 pupils.

Bhingār.—Town in the District and *tāluka* of Ahmadnagar, Bombay, situated in 19° 6′ N. and 74° 45′ E., adjoining the cantonment of Ahmadnagar. Population (1901), 5,722, including a hamlet of 697. Bhingār has a considerable weaving industry, a large proportion of the inhabitants being skilled weavers. The municipality, ounded in 1857, had an average revenue during the decade ending 1901 of Rs. 5,500. In 1903–4 the income was Rs. 8,500, including a loan of Rs. 2,500 from Government.

Bhīnmāl.—Town in the Jaswantpura district of the State of Jodhpur, Rājputāna, situated in 25° N. and 76° 16° E., about 105 miles south-west of Jodhpur city. Population (1901), 4,545. The town contains a post office and a vernacular school, and the principal manufactures are utensils of bell-metal. The place was the old capital of the Gūjars between the sixth and ninth centuries, but very few traces now remain. A dozen old tanks and wells, the stone image of a king seated on a *sinhāsan* (lion-supported throne), and a number of temples, are of some antiquarian interest. Sanskrit inscriptions have been found, referring mostly to the time of the Paramāra and Chauhān rulers. About 14 miles to the south-east is the Sūnda hill, presided over by the goddess Chāmunda in a rock-cut cave-like temple, having a large domed and marble-paved hall, built in 1262, and

containing several inscriptions, the oldest of which (of the same date as the temple) is important as enumerating nineteen generations and the principal events of the Sonigara (Chauhān) rule.

Bhīr District (*Bīr*).—District in the Aurangābād Division, Hyderābād State, lying between 18° 28′ and 19° 27′ N. and 74° 54′ and 76° 57′ E., with a total area of 4,460 square miles. It is bounded on the west and north by the Bombay District of Ahmadnagar and Aurangābād; on the north-east by Parbhani; on the east by Nānder and Bīdar; and on the south by Osmānābād. The area of the *khālsa* and *sarf-i-khās* ('crown') lands is 3,926 square miles, the rest being *jāgīr*. The District is divided into two portions: the Bālāghāt or highlands forming the south and east, and the Pāyānghāt or lowlands. The *tāluks* of Kaij, Amba, Bhīr, and Pātoda lie partly on the Bālāghāt, while the remaining *tāluks* are all situated on the lowlands. A low spur of the Western Ghāts traverses the district from Ahmadnagar to Amba.

Physical aspects.

The largest river is the Godāvari, which forms the northern boundary, separating Bhīr from Aurangābād. Other streams which cross the District are the Mānjra, the Sindphana and its tributary the Bendsūra, and the Vijarta. The first two rise in the Pātoda *tāluk*, and are tributaries of the Godāvari.

The District is situated within the Deccan trap area. In the valleys of the Godāvari and some of its tributaries the trap is overlaid by gravels and clay beds of upper pliocene or pleistocene age, containing fossil bones of extinct mammalia.

Owing to the small extent of jungles large game is rare, though tigers are occasionally met with in some of the wooded hills. Antelope, hyenas, wild hog, wolves, bears, and leopards are common.

The climate is generally healthy and temperate. Pātoda, on the Bālāghāt, is the highest part and is cool even in the hot season. The climate of Bhīr, Māzalgaon, and Gevrai, on the lowlands, is warm and humid.

The annual rainfall averages 30 inches. The amount received in 1899 (15 inches) and 1900 (20 inches) was exceedingly deficient and resulted in the great famine of 1900.

History.

According to tradition, Bhīr was called Durgāvati during the time of the Pāndavas and Kurūs, and its name was subsequently changed to Balni; but Champāvati, Vikramāditya's sister, after capturing it, called it Champāvatinagar. Nothing definite is known of its history, but it must have been included successively in the kingdoms of the Andhras, the Chālukyas, the Rāshtrakūtas, and the Yādavas of Deogiri, from whom it passed to the Muhammadan kings of Delhi. About 1326 Muhammad bin Tughlak

changed the name of Champāvatinagar to Bhīr. After the death of Muhammad bin Tughlak, the town fell successively to the Bahmani, the Nizām Shāhi, and the Adil Shāhi kingdoms. The Mughals eventually captured Bhīr in 1635, and annexed the country to Delhi, but it was again separated on the foundation of the Hyderābād State early in the eighteenth century.

The chief places of archaeological interest are the forts and buildings at Bhīr. At Dhārūr there is a fort built by the Ahmadnagar kings, and a mosque built in the Hindu style of architecture by one of Muhammad bin Tughlak's generals. Amba contains a temple dedicated to Jogai. The temple of Baijnāth at Parli is a celebrated place of Hindu pilgrimage.

Population.

The number of towns and villages, including *jāgīrs*, is 1,004. The population at each Census was: (1881) 558,345, (1891) 642,722, and (1901) 492,258, the decrease during the last decade being due to the famine of 1900. The towns are Bhīr, Amba, Parli, and Māzalgaon. More than 90 per cent. of the population are Hindus, and 87 per cent. speak Marāthī. The following table shows the chief statistics of population in 1901:—

Tāluk.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Bhīr	801	1	155	71,608	89	− 27·3	Not available.
Gevrai	456	...	119	50,672	111	− 28.1	
Māzalgaon	622	1	172	96,929	156	− 7·9	
Amba	667	2	114	72,017	108	− 25·0	
Kaij.	445	...	104	46,560	104	− 34·4	
Ashti	594	...	122	51,999	88	− 22·7	
Pātoda	341	...	71	29,116	85	− 28·7	
Jāgīrs, &c.	534	...	143	73,357	137	− 24·9	
Total	4,460	4	1,000	492,258	110	− 23·4	14,852

In 1905 the Kaij *tāluk* was amalgamated with Amba, the latter name being retained.

The most numerous caste is the Marāthā Kunbī, numbering 196,000, or more than 39 per cent. of the total population. Other important agricultural castes are the Banjārās (36,400) and Kolīs (2,600). Next in point of numbers are the Mahārs or village menials (41,300), the Dhangars or shepherds (26,000), the Māngs and Chamārs or leather-workers (25,400), the Brāhmans (21,600), and the Mālis or gardeners (12,700). Of the trading castes, Vānīs number 6,960 and Mārwāris 6,100. The population supported by agriculture is 265,200,

or 54 per cent. of the total. Christians numbered 91 in 1901, of whom 75 were natives.

Agriculture.

The entire District is situated in the trap region, and its soils are mostly the fertile *regar* or black cotton soil, especially in the *tāluks* of Bhīr, Gevrai, Māzalgaon, and Kaij; while in the remaining *tāluks masab* and *kharab* soils are interspersed with *regar*. The *rabi* or cold-season crops, such as cotton, white *jowār*, gram, gingelly, and wheat, are grown on *regar*, while the *kharīf* or rainy season crops, such as *bājra* and cotton, are sown on the *masab*, and yellow *jowār*, *bājra*, pulses, and oilseeds on the *kharab* or *chalka* lands. Cotton and linseed are produced very largely in the District.

The tenure of lands is mainly *ryotwāri*. In 1901 the *khālsa* area and 'crown' lands occupied 3,926 square miles, of which 2,430 were cultivated, 614 were cultivable waste and fallows, and 882 were not available for cultivation. By 1903 the cultivated area had risen to 3,044 square miles. The staple food-crops are *jowār* and *bājra*, grown on 23 and 14 per cent. of the net area cropped. Wheat and rice are next in importance, the area under these being 53 and 98 square miles. Cotton, which is grown in all the *tāluks*, occupied as much as 318 square miles, and oilseeds 118 square miles.

Since the last settlement, in 1883, all the available land has been taken up, and no extension of the holdings is possible, while the last famine caused a great decrease in the cultivated area, owing to the mortality among the agricultural classes. The ryots have shown no inclination to introduce new varieties of seed or improved agricultural implements.

No particular breed of cattle is characteristic of the District; but the bullocks are strong animals, suitable for ploughing the heavy *regar*. Sheep and goats are of the ordinary kind. Ponies of very fair breed are obtainable for from Rs. 50 to Rs. 75; horses and ponies from Arab sires are of a better class, and fetch from Rs. 100 to Rs. 400 per head. At all the *tāluk* head-quarters stallions are maintained for the purpose of improving the local breed of horses, and the ryots have not been slow to avail themselves of the advantages thus held out.

The irrigated area covers only 86 square miles, supplied by 8,537 wells in good repair. Rivers are utilized to a very small extent, as their beds are too low to allow of water being largely used for irrigation. Three miles west of Bhīr is a large well, called the *Khazāna baoli*, a wonderful work of engineering, which was constructed about 1582 by the *jāgīrdār* of Bhīr. It irrigates 529 acres by means of channels.

No minerals of any economic value are found in the District. Granite, basalt, and nodular limestone occur everywhere and are used for building.

Hand industries are of little importance. *Chhāgals*, or leathern water-bottles, and sword-sticks of superior quality are made. Coarse cloth and *sāris*, of both cotton and silk, are manufactured; but, owing to the cheapness of imported articles, the manufacture is declining. Ordinary black blankets are made by the Dhangars and sold for Rs. 2 or Rs. 3 each. There are two ginning mills, one at Parli in the Amba *tāluk* and the other at Varoni in Māzalgaon. In 1901 the former employed 50 hands, but work in the latter was stopped owing to the famine of 1900.

Trade and communications.

The principal exports are *jowār*, wheat, other cereals and pulses, cotton, linseed, sheep, bones, and jaggery. The chief imports are salt, opium, sugar, silver and gold, copper, brass, iron, kerosene oil, silk, cotton, and woollen cloth.

The most important centres of trade are BHĪR, MĀZALGAON, PARLI, and GEVRAI, where a large business is done in cotton and food-grains. Articles imported from Jālna and Bārsi are distributed from these centres to distant parts of the District, where they are sold at weekly markets.

There are no railways in the District. The total length of roads is 280 miles. The principal roads are: Bhīr to Bārsi, 24 miles; Amba to Parli, 15 miles; and the Ahmadnagar-Jāmkhed road, 27 miles. Only the last is metalled. Besides these, there are fair-weather roads from Bhīr to Satāra (28), to Ashti (26), to Māzalgaon (50), to Gevrai (27), and the Amba road (47 miles), all of which were made during the famine of 1900.

Famine.

In 1899 the rainfall was less than half the average (15 inches), and the District was one of the most seriously affected in the famine area. Both the *kharīf* and *rabi* crops failed, and at one time about one-seventh of the total population was on relief. At this time cholera made its appearance, and the Census of 1901 showed a decrease in the population of 150,464 persons. The cultivators lost 32 per cent of their cattle, and the total cost of the famine to the State exceeded 12 lakhs.

Administration.

The District is divided into three subdivisions: one comprising the *tāluks* of Amba and Māzalgaon, under a Second Tālukdār; and another comprising the *taluks* of Gevrai, Pātoda, and Ashti, under a Third Tālukdar; while the *tāluk* of Bhīr is under the direct control of the First Tālukdār, who also exercises general supervision over the work of his subordinates. Each *tāluk* is under a *tahsīldār*.

The *Nāzim-i-Dīwāni* or Civil Judge is also a joint magistrate, and exercises powers as such in the absence of the First Tālukdār from head-quarters. There are three subordinate civil courts, each under a Munsif. The First Tālukdār is the chief magistrate, while the Second

and Third Tālukdārs and the *tahsīldārs* exercise second and third-class magisterial powers. There is very little serious crime in the District.

It appears that in early times revenue was assessed by holdings. This system continued to the time of Malik Ambar, who measured the land and fixed the state dues at one-third the produce, which was subsequently commuted to cash payments. He dealt directly with the ryots and gave them a proprietary right in the land they tilled. In 1866 Districts were formed and the revenue was revised. In 1883 Bhīr District was formally settled. The survey then carried out showed an excess of 178,815 acres, or 11 per cent. over the area returned in the accounts, while the revenue was enhanced by 1·5 lakhs, or 13 per cent. The average assessment on 'dry' land is Rs. 1-8 (maximum Rs. 1-14, minimum R. 1), and on 'wet' land Rs. 5 (maximum Rs. 6, minimum Rs. 4).

The land revenue and the total revenue for a series of years are shown below, in thousands of rupees:—

	1881.	1891.	1901.	1903.
Land revenue . .	11,31	12,84	13,38	13,42
Total revenue . .	11,67	13,36	14,44	14,17

In 1888 the one anna cess was first levied to meet local requirements, five-twelfths being set apart for municipal and local works. *Tāluk* boards were formed at each *tāluk* head-quarters, with the *tahsīldārs* as chairmen, except at Bhīr, where a District board was established under the presidency of the First Tālukdār, which supervises the working of the *tāluk* boards and also of the municipality of Bhīr.

The First Tālukdār is the head of the police, with the Superintendent (*Mohtamim*) as his executive deputy. Under him are 8 inspectors, 69 subordinate officers, 510 constables, and 25 mounted police, distributed in 20 police stations and 15 outposts. There is a jail at Bhīr town with accommodation for 200 prisoners, but convicts with sentences exceeding six months are sent to the Central jail at Aurangābād. A lock-up is maintained at each *tahsīl* office.

In 1901 the proportion of persons able to read and write was 3 per cent. (5·9 males and 0·05 females). The number of pupils under instruction in 1881, 1891, 1901, and 1903 was 436, 2,000, 3,247, and 3,383 respectively. In 1903 there were 3 middle and 54 primary schools, with 44 girls under instruction. The first State school was opened in 1866, and Local fund schools date from 1888. The total expenditure on education in 1901 was Rs. 23,500, of which Rs. 10,600 was contributed by the State and the remainder by local boards. The receipts from fees amounted to Rs. 2,211.

The District contains one hospital and two dispensaries, with accom-

modation for 11 in-patients. The total number of cases treated in 1901 was 17,663, of whom 90 were in-patients, and 512 operations were performed. The expenditure amounted to Rs. 11,000, of which Rs. 1,272 was paid from Local funds and the remainder by the State. The total number of persons successfully vaccinated in 1901 was 2,083, or 4·3 per 1,000 of population.

Bhīr Tāluk.—Central *tāluk* of Bhīr District, Hyderābād State, with an area of 870 square miles. The population in 1901, including *jāgīrs*, was 88,160, compared with 121,262 in 1891, the decrease being due to the famines of 1897 and 1899–1900. The *tāluk* contains one town, BHĪR (population, 17,671), the head-quarters of the District and *tāluk*; and 172 villages, of which 17 are *jāgīr*. The land revenue in 1901 was 2·4 lakhs. The *tāluk* is situated partly on the plateau and partly on the plain, and is composed of black cotton soil.

Bhīr Town.—Head-quarters of Bhīr District, Hyderābād State, situated in 18° 59′ N. and 75° 46′ E., on the Bendsūra river. Population (1901), 17,671, of whom 12,307 were Hindus, 4,993 Musalmāns, and 68 Christians. Prior to the Muhammadan invasion it belonged to the Chālukyas and subsequently to the Yādavas of Deogiri; but it was taken by Muhammad bin Tughlak, and became the head-quarters of one of his Deccan provinces. Muhammad bin Tughlak's tooth is buried in a tomb near the town. Early in Shāh Jahān's reign several battles were fought near this place between the imperial troops and those of Bijāpur and Ahmadnagar. Bhīr is noted for several kinds of leathern work, especially water-bottles called *chhāgals*, and also for sword-sticks.

Bhitargarh.—Ruins of an ancient city in the head-quarters subdivision of Jalpaigurī District, Eastern Bengal and Assam, situated in 26° 27′ N. and 88° 37′ E. The city is supposed to have been founded by one Prithu Rājā, whose date is unknown, but who probably preceded the Pāl dynasty of the ninth century. It apparently comprised four separate enclosures, the innermost being the palace. It was 4¾ miles in length by 2 or 2½ in breadth. It is surrounded by several moats, there being on one side no less than six; and it contains a large tank, known as the Prithwī-sul *dīghi*, with the remains of ten masonry *ghāts*. Prithu Rājā is said to have eventually drowned himself in this tank, in order to avoid pollution from the touch of the Kichaks, who had invaded his country from the north. The Tālma river on the west was utilized to fill one of the moats. These ruins are described by Buchanan Hamilton in *Martin's Eastern India*, vol. iii, pp. 433–46.

Bhitrī.—Village in the Saidpur *tahsīl* of Ghāzīpur District, United Provinces, situated in 25° 34′ N. and 83° 17′ E., 3 miles north-east of Saidpur-Bhitrī station on the Bengal and North-Western Railway. The place is important for the archaeological remains that have been found.

A red sandstone pillar, consisting of a single block 28¼ feet in height, stands near a large mound and bears an undated inscription of Skanda Gupta of Magadha. A still more important inscription was found on a seal at the same place, which gives the genealogy of nine generations of Gupta kings. A modern mosque has been largely built from fragments of ancient sculptures found in the neighbourhood. A fine bridge over the Gāngī was built by one of the kings of Jaunpur in the fifteenth century. Bhitrī contains an aided primary school with 79 pupils.

[J. F. Fleet, *Gupta Inscriptions*, p. 52; *Journal, Asiatic Society of Bengal*, 1889, pp. 84, 88.]

Bhittanni.—A tribe inhabiting the borders of Dera Ismail Khān and Bannu Districts, North-West Frontier Province, dwelling partly in independent territory and partly in British India. The Bhittanni country lies between the Derajāt and Mahsūd territory. The area occupied by independent Bhittannis is about 15 miles wide and 25 miles long, extending from Spīnghar and Jandola on the west to the foot of the hills at the Bain pass on the east, and from the Gabarghar on the north to Girni Sar on the south. Three-fourths of the tribe, which numbers between 5,000 and 6,000 fighting men, are at present revenue-paying British subjects.

The independent Bhittannis are politically controlled by the Deputy-Commissioner of Dera Ismail Khān. They are the hereditary enemies of the Mahsūds, although they have more than once forgone their time-honoured feud, and either combined with, or aided and abetted, their more rapacious neighbours in attacks and raids in British territory. Now, however, they have practically become identified as a tribe with British interests, and they furnish valuable material for a company of the South Wazīristān militia corps.

In appearance the Bhittannis are not so rough as the Mahsūds, though in physique they closely resemble them; they have discarded the dress of their neighbours of the Wazīristān highlands for the more civilized apparel of the Daman, and present a much cleaner appearance. Their pronunciation resembles that of the Mahsūds, but they have a curious trick of misplacing aspirates, which are in general correctly sounded by their neighbours.

Their country consists, beyond the administrative border, of rough stony hills scored by deep valleys, along which there is a little cultivation here and there, where the inhabitants have been able to lead the rather intermittent water-supply of the nullahs on to the cultivable lowland by irrigation channels. The Bhittanni hills are extremely rough and almost devoid of verdure, their rugged and barren character being probably due to the denuding action of rain and sun on the friable soil of these outer ranges.

Bhiwandi Tāluka.—Central *tāluka* of Thāna District, Bombay,

lying between 19° 12′ and 19° 32′ N. and 72° 58′ and 73° 15′ E., with an area of 249 square miles. It contains one town, BHIWANDI (population, 10,354), the head-quarters; and 196 villages. The population in 1901 was 77,440, compared with 87,490 in 1891. The density, 311 persons per square mile, exceeds the District average. The land revenue and cesses amounted in 1903-4 to 2·1 lakhs. The centre of the *tāluka* is well peopled and richly tilled, but in the west the country is hilly. Except in the south it is surrounded by the hills which form the watershed of the river Kāmvādi, which runs through the *tāluka* from north to south. In the west, after the rains, the climate is malarious, but in the other parts it is generally healthy. Water-supply is fairly abundant, but far from wholesome. Rice is the chief product.

Bhiwandi Town.—Head-quarters of the *tāluka* of the same name in Thāna District, Bombay, situated in 19° 18′ N. and 73° 3′ E., 29 miles north-east of Bombay. Population (1901), 10,354. Together with the neighbouring village of Nizāmpur, Bhiwandi forms a municipality, constituted in 1865, with an income (1903-4) of Rs. 20,700. It is supplied with water by means of an aqueduct constructed by the inhabitants with the aid of a Government contribution. The population and mercantile importance of this place are on the increase. The chief industries are weaving and rice-cleaning, and the principal articles of trade are rice, dried fish, cloth, grass, and wood. The largest steam rice-husking mill in the Presidency is situated here. The town contains a Sub-Judge's court, a dispensary, and four vernacular schools for boys with 444 pupils, and two for girls with 146.

Bhiwāni Tahsil (*Bhawānī*).—*Tahsīl* of Hissār District, Punjab, lying between 28° 36′ and 28° 59′ N. and 75° 29′ and 76° 18′ E., with an area of 750 square miles. The population in 1901 was 124,429, compared with 127,794 in 1891. The head-quarters are at the town of BHIWĀNI (population, 35,917); and it also contains 131 villages, among which TOSHAM is a place of historical importance. The land revenue and cesses amounted in 1903-4 to 1·2 lakhs. The northern part of the *tahsīl* lies in Hariāna. South of Bhiwāni town, rolling sandhills and low rocky eminences are the main features of the landscape.

Bhiwāni Town (*Bhawānī*).—Head-quarters of the *tahsīl* of the same name in Hissār District, Punjab, situated in 28° 48′ N. and 76° 8′ E., on the Rewāri-Bhatinda branch of the Rājputāna-Mālwā Railway; distant by rail from Calcutta 1,059 miles, from Bombay 890, and from Karāchi 857. Population (1901), 35,917. The town is practically a creation of British rule, having been an insignificant village when it was selected in 1817 as the site of a free market. It rapidly rose to importance; and though its trade suffered greatly from the opening of the Rājputāna-Mālwā Railway, the construction of the Rewāri-Ferozepore line has restored its former position. Bhiwāni is

commercially the most important town in Hissār District. It is one of the great centres of trade with Rājputāna, the chief articles of commerce being wheat, flour, salt, sugar, cotton goods, and iron. It possesses three cotton-ginning factories, and one cotton-press, which give employment to 379 hands. The principal manufactures are brass vessels, tin boxes, and small wooden tables. The municipality was created in 1867. The municipal receipts during the ten years ending 1902-3 averaged Rs. 54,900, and the expenditure Rs. 56,700. The income and expenditure in 1903-4 were Rs. 49,700 and Rs. 47,700 respectively; the chief source of income was octroi (Rs. 42,700), while the main items of outlay were conservancy (Rs. 7,000), education (Rs. 7,700), medical (Rs. 6,900), public safety (Rs. 13,300), and administration (Rs. 4,800). The town has an Anglo-vernacular middle school and a dispensary.

Bhogdai.—A river of Assam, which rises in the Nāgā Hills, and falls into the Brahmaputra after a north-westerly course through Sibsāgar District. In the upper part of its course it is styled the Disai; and the name Bhogdai is said to have first come into use at the end of the eighteenth century, in memory of a feast given to the labourers employed on the deepening of the lower channel. Mariāni, a considerable tea centre, and Jorhāt are situated on the left bank of the river, but there is not enough water in the channel to allow of its being used as a trade route. In the lower part of its course floods do some damage, and small protective works have been constructed. The silt is, however, said to have a fertilizing effect. The river is spanned both by railway and road bridges at Mariāni and Jorhāt, and is 81 miles in length.

Bhognīpur Tahsīl (or Pukhrāyān).—South-western *tahsīl* of Cawnpore District, United Provinces, conterminous with the *pargana* of the same name, lying between 26° 5′ and 26° 25′ N. and 79° 31′ and 80° 2′ E., with an area of 368 square miles. Population increased from 120,806 in 1891 to 141,346 in 1901. There are 308 villages and one town, Mūsānagar (population, 1,575). The demand for land revenue in 1903-4 was Rs. 2,68,000, and for cesses Rs. 43,000. The density of population, 384 persons per square mile, is considerably below the District average. On the south flows the Jumna, while the Sengar forms part of the northern boundary and then turns abruptly south to meet the Jumna. Both rivers are fringed by deep ravines, and the soils resemble those in BUNDELKHAND. Water is found only at an immense depth, and irrigation is supplied almost entirely by the Bhognīpur branch of the Lower Ganges Canal. In 1903-4 the area under cultivation was 225 square miles, of which 67 were irrigated.

Bhoika.—Petty State in KĀTHIĀWĀR, Bombay.

Bhoj.—Village in the Chikodi *tāluka* of Belgaum District, Bombay, situated in 16° 32′ N. and 74° 30′ E., about 13 miles north-west of Chikodi town. Population (1901), 5,450. The village has a copper-plate grant, dated 1208, of Kārtavirya IV and Mallikārjun (1200–18), brothers and joint-rulers belonging to the Ratta dynasty of Saundatti and Belgaum (875–1250). In 1773 Bhoj was the scene of the defeat by Yesāji Sindhia, the Kolhāpur minister, of Konher Rao Trimbak Patvardhan of Kurandvād, who was raiding into the heart of the Kolhāpur country. The village contains a boys' school with 22 pupils.

Bhojākheri.—*Thakurāt* in the MĀLWĀ AGENCY, Central India.

Bhojavadar.—Petty State in KĀTHIĀWĀR, Bombay.

Bhojpur.—Village in the Bhopāl State, Central India, situated in 23° 6′ N. and 70° 38′ E., celebrated for the remains of a magnificent temple and cyclopean dam. Population (1901), 237. The great Saivite temple is in plan a simple square, with an exterior dimension of 66 feet, and is devoid of the re-entrant angles usual in such buildings. Inside are four massive pillars, 40 feet high, supporting an incomplete but magnificent dome, covered with rich carving. The pillars, though very massive, have a tapering appearance, as they are made in three sections, the lowest, an octagon with facets of 2½ feet, surmounted by a second octagon with facets of 2⅛ feet, from which springs a 24-faced section. The doorway is richly carved above, but plain below, while two sculptured figures of unusual merit stand on either hand. On the other three sides of the building are balconies, each supported by massive brackets and four richly carved pillars. The temple was never completed, and the earthen ramp used to raise stones to the level of the dome is still standing. The *lingam* inside is of great size and unusual elegance, being 7½ feet high and 17 feet 8 inches in circumference. It stands on a massive platform 21½ feet square, made of three superimposed blocks of sandstone; and, in spite of its great size, the *lingam* and its pedestal are so well proportioned as to produce a general effect of solidity and lightness truly remarkable. The temple probably belongs to the twelfth or thirteenth century. Had it been completed, it would have had few rivals.

Close to this temple stands a Jain shrine containing three figures of Tīrthankars, one being a colossal statue of Mahāvira 20 feet high, and the other two of Pārasnāth. This temple is also rectangular in plan and was possibly erected at the same time; but, like the Hindu temple, it was left unfinished, and bears a similar ramp for raising stones.

West of Bhojpur once lay a vast lake, but nothing remains except the ruins of the magnificent old dams by which its waters were held up. The site was chosen with great skill, as a natural wall of hills enclosed the whole area except for two gaps, in width 100 yards and

500 yards respectively. These were closed by gigantic dams made of earth faced on both sides with enormous blocks of sandstone, many being 4 feet long by 3 feet broad and 2½ feet thick, set without mortar. The smaller dam is 44 feet high and 300 feet thick at the base, the larger dam 24 feet high with a flat top 100 feet broad. These embankments held up an expanse of water of about 250 square miles, its southernmost point lying just south of KALIĀKHERĪ town, which stands in what was formerly the bed of the lake, and its northernmost point at Dumkhera village near Bhopāl city. Tradition ascribes this great work to Rājā Bhoj of Dhār (1010–53), but it may possibly be of earlier date. The Betwā river being insufficient to fill the area enclosed, the great dam between the lakes at Bhopāl city was built, by which the stream of the Kaliāsot was turned from its natural course so as to feed this lake. Close to Bhojpur and east of the great dam is a waste weir, cut out of the solid rock of one of the lower hills.

The lake was destroyed by Hoshang Shāh of Mālwā (1405–34), who cut through the lesser dam, and thus, either intentionally or in a fit of destructive passion, added an enormous area of the highest fertility to his possessions. The Gonds have a tradition that it took an army of them three months to cut through the dam, and that the lake took three years to empty, while its bed was not habitable for thirty years afterwards. The climate of Mālwā is said to have been materially altered by the removal of this vast sheet of water.

[*Journal, Royal Asiatic Society, Bombay*, vol. viii (ii), p. 805; vol. xvi (ii), p. 739; *Indian Antiquary*, vol. xvii, p. 348].

Bhokar.—Native State in the Central Provinces. *See* CHĀNG BHAKĀR.

Bhokardan.—North-eastern *tāluk* of Aurangābād District, Hyderābād State, with an area of 938 square miles. The population in 1901, including *jāgīrs*, was 81,276, compared with 115,657 in 1891, the decrease being due to the famines of 1897 and 1899–1900. The *tāluk* contains 307 villages, of which 165 are *jāgīr*; and Bhokardan (population, 2,082) is the head-quarters. The land revenue in 1901 was 1·7 lakhs. The country is composed of black cotton soil.

Bholā.—Head-quarters of the Dakhin Shāhbāzpur subdivision, Backergunge District, Eastern Bengal and Assam, situated in 22° 41′ N. and 90° 40′ E. Bholā consists of portions of three villages, the aggregate population of which in 1901 was 6,263. It contains the usual public offices; the sub-jail has accommodation for 18 prisoners.

Bholath Tahsīl.—*Tahsīl* of the Kapūrthala State, Punjab, lying between 31° 32′ and 31° 34′ N. and 75° 26′ and 75° 56′ E., with an area of 127 square miles. The population increased from 61,806 in 1891 to 62,270 in 1901. It contains 126 villages. The land revenue and cesses amounted in 1903–4 to 1·9 lakhs. The *tahsīl* is generally fertile, and

lies for the most part in the Beās lowlands. The Bhunga *ilāka* is especially remarkable for its salubrity and fertility.

Bhomorāguri Hill.—Place of archaeological interest in Darrang District, Eastern Bengal and Assam. *See* TEZPUR.

Bhongaon Tahsīl.—Eastern *tahsīl* of Mainpurī District, United Provinces, comprising the *parganas* of Bhongaon, Bewar, Alīpur Pattī, and Kishnī Nabīganj, and lying between 26° 58′ and 27° 26′ N. and 79° 1′ and 79° 26′ E., with an area of 459 square miles. Population increased from 195,368 in 1891 to 226,940 in 1901. There are 390 villages and only one town, BHONGAON (population, 5,582), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 2,86,000, and for cesses Rs. 46,000. These figures have been raised in the new settlement to Rs. 3,19,000 for revenue and Rs. 51,000 for cesses. The density of population, 494 persons per square mile, is above the District average. On the north the *tahsīl* is bounded by the Kālī Nadī, while the rivers Isan and Arind cross it from north-west to south-east. It contains a large proportion of sandy soil or *bhūr*, especially near the Kālī Nadī, while the loam area south of the Isan includes considerable areas of barren soil or *ūsar* and large swamps. During the cycle of wet years, beginning in 1883, the tract near the Kālī Nadī suffered from flooding, and *kāns* spread in the affected area. Ample irrigation is provided by three branches of the Lower Ganges Canal, which supply more than half the irrigated area, and by wells, which supply about one-third. In 1900–1 the area under cultivation was 260 square miles, of which 205 were irrigated. Tanks and streams irrigate about 20 square miles, a larger area than in any other *tahsīl* in the District.

Bhongaon Town.—Head-quarters of the *tahsīl* of the same name in Mainpurī District, United Provinces, situated in 27° 16′ N. and 79° 11′ E., on a branch of the East Indian Railway, and on the grand trunk road. Population (1901), 5,582. According to tradition, the town was founded by a mythical Rājā Bhīm, who was cured of leprosy by bathing in a pond here. It was the head-quarters of a *pargana* under Akbar, and a high mound marks the residence of the *āmil* or governor. Bhongaon is administered under Act XX of 1586, with an income of about Rs. 1,300. It has very little trade. The *tahsīlī* school has about 70 pupils.

Bhongīr Tāluk.—North-western *tāluk* of Nalgonda District, Hyderābād State, with an area of 1,054 square miles. Including *jāgīrs*, the population in 1901 was 194,606, compared with 144,546 in 1891. The *tāluk* contains one town, BHONGĪR (population, 5,806), the head-quarters; and 235 villages, of which 143 are *jāgīr*. The Nizām's State Railway passes through the *tāluk* from west-south-west to east-north-east. The land revenue in 1901 was 1·4 lakhs. Rice, castor-seed,

plantains, and betel-leaves are extensively grown, and irrigated from wells, tanks, and channels.

Bhongīr Town.—Head-quarters of the *tāluk* of the same name in Nalgonda District, Hyderābād State, situated in 17° 31′ N. and 78° 53′ E. Population (1901), 5,806. The town is situated at the foot of a fortified rock, 2,000 feet above sea-level. In 1709 a freebooter, Pāp Rai, raised a large body of followers and committed depredations in the Deccan by plundering Warangal and Bhongīr, but was eventually captured and executed. Bhongīr is an important centre of trade and is celebrated for its pottery. It contains the offices of the Second Tālukdār, engineer, and *tahsīldār*, and also a post office, a dispensary, and a vernacular school. The fort is built on an isolated rock, the eastern and southern sides of which are quite unscalable; from the *bālāhisār* or citadel on the top a good view over the surrounding country may be obtained for long distances.

Bhopāl Agency.—A collection of Native States in charge of a Political Agent under the Agent to the Governor-General in Central India, lying between 22° 19′ and 24° 21′ N. and 76° 13′ and 78° 51′ E. It is bounded on the south and east by the Central Provinces; on the north by the Rājputāna Agency and Gwālior State; and on the west by the Kālī Sind, which separates it from the Mālwā Agency. The Bhopāl Agency has an area of 11,653 square miles, and a population (1901) of 1,157,697, giving a density of 99 persons per square mile. Hindus number 912,111, or 79 per cent.; Musalmāns, 124,425, or 10 per cent.; Animists, 110,018, or 9 per cent. (chiefly Gonds); and Jains, 10,171. The principal towns are BHOPĀL (population, 77,023), SEHORE, including military station (10,864), NARSINGHGARH (8,778), SĀRANGPUR (6,339), RĀJGARH (5,399), KHILCHIPUR (5,121), and BERASIĀ (4,276).

This charge was created in 1818, when a Political officer was accredited to the Bhopāl Darbār with collateral charge over other States in the vicinity. He ranked as an Agent to the Governor-General till 1842, when the charge was made into a Political Agency. It now includes the treaty State of BHOPĀL, and the mediatized States of RĀJGARH, NARSINGHGARH, KORWAI, KHILCHIPUR, MAKSUDANGARH, MUHAMMADGARH, BĀSODA, and PATHĀRĪ, with sixteen petty holdings. The SIRONJ *pargana* of the Tonk State in Rājputāna and portions of Gwalior, Indore, Dhār, and Dewās also fall within its limits.

The Agra-Bombay high road and the Itārsi-Jhānsi and Bhopāl-Ujjain sections of the Great Indian Peninsula Railway traverse the charge. The Political Agent, who has his head-quarters at SEHORE, exercises general supervision over the affairs of the States, and, in the case of all but Bhopāl, personally deals with criminal cases of a heinous character. He is a Sessions Judge, and hears appeals from the Superintendent of Sehore, and also exercises the powers of a District

Magistrate and District and Sessions Judge over that portion of the Itārsi-Jhānsi section of the Great Indian Peninsula Railway which lies in the Bhopāl and Korwai States, and over the whole of the Bhopāl-Ujjain Railway.

The following table shows the States, estates, and portions of States comprised in the Agency:—

Name.	Title.	Caste or clan.	Area in square miles.	Population (1901)	Total revenue.
					Rs.
Bhopāl	H.H. Nawāb Begam	Pathān Musalmān	6,902	665,961	25,00,000
Rājgarh	H. H. Rājā	Umat Rājput	940	88,376	4,50,000
Narsinghgarh	H. H. Rājā	Umat Rājput	741	92,093	5,00,000
Korwai	Nawāb	Pathān Musalmān	111	13,634	37,000
Khilchipur	Rao Bahādur	Khīchī Rājput	273	31,143	1,14,000
Maksudangarh	Rājā	Khīchī Rājput	81	14,284	37,000
Muhammadgarh	Nawāb	Pathān Musalmān	29	2,944	7,000
Bāsoda	Nawāb	Pathān Musalmān	40	4,897	19,000
Pathārī	Nawāb	Pathān Musalmān	22	2,704	9,000
Daria Kherī	Thākur	Bargūjar Rājput	6	442	7,500
Dhābla Dhīr	Thākur	Bargūjar Rājput	12	1,788	10,000
Dhābla Ghosi	Thākur	Bargūjar Rājput	6	668	9,500
Dugrī	Miān	Pindāra Musalmān	3	144	1,500
Hirāpur	Rao	Korkū	6	448	7,000
Jabria Bhīl	Miān	Pindāra Musalmān	5	903	5,000
Jhalera	Rao	Rāthor Rājput	*		1,300
Kamālpur	Thākur	Bargūjar Rājput	8	589	11,000
Khajuri	Miān	Pindāra Musalmān	1	520	2,400
Khārsi	Rao	Rāthor Rājput	*	*	1,700
Pathāria	Thākur	Chauhān Rājput	7	441	2,000
Pipliānagar	Miān	Pindāra Musalmān	1	701	2,000
Rāmgarh	Rao	Chauhān Rājput	*	*	8,600
Sādankherī	Thākur	Bargūjar Rājput	2	630	2,000
Suthālia	Thākur	Umat Rājput	20	4,623	20,000
Tappa	Thākur	Sendhu Rājput	15	882	3,400
Portions of					
Dewās State, Senior Branch	... ...	... ...	61	10,604	63,000
Dewās State, Junior Branch	... ...	... ...	61	10,454	55,300
Dhār	... ...	... ...	10	1,415	5,000
Gwalior	... ...	... ...	1,386	118,542	7,75,000
Indore	... ...	... ...	25	5,979	23,000
Tonk (Rājputāna)	... ...	... ...	879	68,539	1,30,000
Railways and cantonments	... ...	.. ...	...	13,349	...
		Total	11,653	1,157,697	48,19,200

* No village.

Bhopāl State (*Bhūpāl*).—A State in Central India, under the Bhopāl Agency, and next to Hyderābād the most important Muhammadan State in India, lying between 22° 29′ and 23° 54′ N. and 76° 28′ and 78° 51′ E., with an area of 6,902 square miles. It stands on the

eastern confines of Mālwā, its most eastern districts bordering on Bundelkhand, and its southern districts being in the Gondwāna tract. Unlike the other large States of the Agency, its territory is comprised in one compact block, bounded on the north by the States of Gwalior, Bāsoda, Korwai, Maksudangarh, and Narsinghgarh, the Sironj *pargana* of Tonk State, and the Saugor District of the Central Provinces; on the south by the Narbadā river, which separates it from the Hoshangābād District of the Central Provinces; on the east by the Saugor and Narsinghpur Districts of the Central Provinces; and on the west by the Gwalior and Narsinghgarh States. The name is popularly derived from Bhojpāl, or 'Bhoj's dam,' the great dam which now holds up the Bhopāl city lakes, and is said to have been built by a minister of Rājā Bhoj, the Paramāra ruler of Dhār, the still greater work which formerly held up the Tāl lake being attributed to this monarch himself (*see* BHOJPUR). The name is, however, invariably pronounced Bhūpāl, and Dr. Fleet considers it to be derived simply from Bhūpāla, a king, the popular derivation being an instance of the striving after a meaning so common in such cases.

Physical aspects.

The country varies markedly in different parts. Most of the State lies on the MĀLWĀ plateau, and presents the familiar aspect of that region, rolling downs of yellow grass, interspersed with rich fields of black cotton soil. To the south-east, however, it is traversed by a succession of sandstone hills, forming an arm of the great Vindhya range, while another branch of the same range strikes northwards, to the west of Bhopāl city. South of the State lies the main line of the Vindhyas, with the fertile valley of the Narbadā beyond.

Numerous streams flow from the Vindhyan barrier northwards, of which the Betwā and Pārbati are the largest, their tributaries, the Kaliāsot, Ajnar, Papras, and Pāru, and many smaller affluents contributing to the water supply. The Narbadā and its tributaries water the valley south of the great range. Two large lakes afford an ample supply of water to the city and surrounding country (*see* BHOPĀL CITY). In former days the enormous Bhojpur lake occupied what is now the fertile *tahsīl* of Tāl.

The geology of the State possesses unusual interest, but unfortunately has not as yet been fully worked out, only the southern portion having been examined in detail. The most important rocks belong to the Vindhyan series, of which the Rewah, Bandair (Bhānder), and Kaimur sandstones, the Kaimur conglomerate, and the Sirbū, Jhirī, and Ginnurgarh shales are represented. Up to the Ginnurgarh fort (22° 49′ N. and 77° 36′ E.), the Vindhyas maintain the characteristics they possess from the bend of the Son river westwards; but at this point they change suddenly, being replaced by basalts of the Deccan trap, though

they still maintain their former physical conformation. A north-westerly arm reaches up to Bhopāl city, but is concealed by basalt, except in the region lying immediately east and south-east of the city, where its highest beds, of upper Bandair sandstone, are well exposed along the axis of the synclinal fold, the original cover of basalt having here been removed by subaerial denudation. East and west of the main outcrop the denudation is less complete, and the table-land is often crowned with a highly ferruginous laterite. The basalts met with are petrologically of great interest, varying considerably in constitution, coarse, fine-grained, compact, and vesicular varieties being all met with. The vesicular basalts often contain geodes 2 to 3 feet in diameter, full of crystals of zeolite, and intertrappean fresh-water beds, with fossil spores of aquatic plants of the genus *Chara*.

Many of the stones are of great economic value. The Kaimur sandstone has been extensively quarried, and yields an admirable stone for building and ornamental purposes; the upper Rewah formation, which furnishes flagstones of great size, and the Bandairs are also much used. The lower Bandairs are here of a very fine and even grain, quite unlike the coarse gritty stone of this formation met with in Bundelkhand and Baghelkhand, and are thus a most valuable source of building material. A dark purple-red stone of fine grain found in the upper Bandairs has been used in many buildings.

Another deposit, of which, however, adequate commercial advantage has not as yet been taken, is the limestone rock at Ginnurgarh, which is over 100 feet thick and admirably suited for burning for lime.

The flora of the sandstone region differs markedly from that on the Deccan trap area. In the former the jungle is much closer, trees are more abundant and of a much greater variety. On the trap area the trees consist mainly of acacias and *dhāk* (*Butea frondosa*), the change to a sandstone soil being at once signalled by the presence of teak, *tendū* (*Diospyros tomentosa*), *sāl* (*Shorea robusta*), and *salai* (*Boswellia serrata*). Other species met with are *Terminalia*, *Anogeissus*, *Stephegyne*, and *Buchanania*, often interspersed with stretches of *Dendrocalamus strictus*. The undergrowth contains *Zizyphus*, *Capparis*, *Grewia*, *Casearia*, *Phyllanthus*, *Antidesma*, *Carissa*, and other species.

The jungle in the sandstone area affords ample cover to wild animals, tigers, leopards, *sāmbar* (*Cervus unicolor*), and *chītal* (*Cervus axis*) being common. Formerly bison (*Bos gaurus*) were found in the south of the State, but they are now almost, if not entirely, extinct in this region. All the ordinary wild-fowl are found, duck and snipe in large numbers frequenting the big tank to the west of the city.

The climate in most of the State is the same as that of Mālwā, but in the hilly region to the south greater extremes of heat and cold are encountered. The rainfall recorded at Bhopāl city gives an average of

42 inches, a maximum of 65 being recorded in 1875 and a minimum of 25 in 1897. The destruction of the great Bhojpur lake in the fifteenth century appears to have modified the climate considerably. The winds which blew over this expanse of water, exceeding 200 square miles in extent, must have had a marked effect on the climate of the surrounding country.

The founder of the Bhopāl family was Dost Muhammad Khān, an Afghān from Tīrāh, belonging to the Mirzai Khel of the Bārakzais. He came to Delhi during the first years of Bahādur Shāh's reign (1708) in search of employment. In 1709 he obtained a lease of the BERASIĀ *pargana* and, rapidly extending his dominions, founded the towns of Islāmnagar and Bhopāl, making the latter place his head-quarters, and building the Fatehgarh fort. Later on Dost Muhammad assumed independence and adopted the title of Nawāb. In 1720 he incurred the enmity of the Nizām, but made terms, sending his illegitimate son Yār Muhammad Khān as a hostage. Dost Muhammad was a man of strong character and was considered, even in a tribe where valour is a common quality, to possess remarkable courage. His memory is still fondly cherished by the family of which he was the founder. He died about 1740, at the age of sixty-six, and the chief nobles of the State placed Muhammad Khān, a child of eight, on the *masnad.* The latter was, however, ousted soon after by Yār Muhammad Khān, who returned from Hyderābād, and whose succession was supported by the Nizām. The Nizām at the same time conferred on him the *Māhi Marātib* or insignia of the Fish, one of the highest honours of the Mughal empire. Owing, however, to his illegitimacy, Yār Muhammad was never formally installed as Nawāb. His rule was uneventful. He died in 1754, and was succeeded by his son Faiz Muhammad Khān, then eleven years of age. An unsuccessful attempt to push his claim by arms was made by his uncle Muhammad Khān, who was defeated and retired to Rāhatgarh, which was granted him in *jāgīr* on the intercession of Yār Muhammad's widow.

History.

Faiz Muhammad was a religious recluse, quite unfit to rule a large State, though in personal appearance he was a giant, being only just under 7 feet in height. The State was administered by a Hindu, Baiji Rām, who was an energetic and excellent administrator, and extended the dominions considerably. Later on, however, he was obliged to surrender half the Bhopāl possessions to the Peshwā Bājī Rao. Faiz Muhammad died childless in 1777, and was succeeded by his brother Hayāt Muhammad Khān, who was also a religious recluse and a weak and incapable ruler. He adopted as a meritorious act four boys as his *chelas*, one a Gond, one the son of a Gosain, and two Brāhmans, whom he brought up as Muhammadans.

In 1778 the Gond Faulād Khān was minister, and was instrumental in assisting Colonel Goddard on his famous march from Bengal to Bombay to support the claims of Raghuba to the Peshwāship. While many obstacles were put in the way of the force by the Marāthās, the Bhopāl officials treated the British with the greatest confidence and hospitality, furnishing them with supplies and giving every possible assistance, though they suffered severely in consequence from Marāthā depredations. Faulād Khān's rule was, however, oppressive; and on his death in 1779, Māmullah, the widow of Yār Muhammad Khān, appointed Chhote Khān, one of the two Brāhman protegés of Hayāt Muhammad, as minister. This lady was a woman of remarkable power, who deserves to rank with her contemporary Ahalyā Bai of Indore. She lived to the great age of eighty, and for fifty years entirely controlled the councils of the State. After the death of Chhote Khān, in 1798, a succession of weak ministers rapidly brought the State into imminent danger of total destruction at the hands of the Pindāri hordes and great Marāthā chiefs. Providentially a saviour appeared in Wazīr Muhammad Khān, a cousin of the Nawāb, who assumed the sole direction of affairs, and by his bold and energetic policy rapidly retrieved the fallen fortunes of the State. Hayāt Muhammad would have appointed him minister, but for the strenuous opposition of his son Ghaus Muhammad Khān and his mother, who obtained this position for Murīd Muhammad Khān of Rāhatgarh. Murīd was an unprincipled scoundrel, whose acts of tyranny soon disgusted the Afghān nobles. Failing in his repeated attempts to destroy the power of Wazīr Muhammad Khān, he appealed to Sindhia. The Fatehgarh fort in Bhopāl was handed over to Amīr Khān (*see* TONK), then in Sindhia's service, and Wazīr was forced to leave the country. Disturbances at Gwalior, however, caused Sindhia to recall his troops, and Wazīr, returning at the head of a considerable force, expelled the Marāthās from the fort. Murīd was taken away as a hostage by the Marāthā general, and shortly after died. Wazīr then assumed charge of the State; and, though the revenues were reduced to only Rs. 50,000, he managed to raise an army and recapture the lost districts on the Narbadā. Ghaus Muhammad's jealousy was roused by this increasing power, and he intrigued with the Pindāri leader Karīm Khān, who was in the pay of Bhopāl, to destroy him. Wazīr was again obliged to retire, but returned soon after and drove out the Pindāris. Ghaus Muhammad then again turned to Sindhia, agreeing to give up the Islāmnagar fort and pay a large sum of money if Wazīr were expelled. This year (1807) Nawāb Hayāt Muhammad, who had long withdrawn from all active participation in public life, died.

In 1807 the Nāgpur forces under Sādik Alī seized several outlying districts, and at Ghaus Muhammad's special request advanced to

Bhopāl itself. Wazīr retired in disgust to the Ginnurgarh fort, and Sādik Alī after staying six weeks returned to Nāgpur, taking Ghaus Muhammad's son as a hostage. Wazīr at once came back and took possession of the Fatehgarh fort. Ghaus Muhammad now admitted that he had been led astray by evil counsels; and Wazīr with his usual vigour rapidly recovered the territory taken by Sādik Alī, and made a strenuous effort to conclude a treaty with the British, sending Ināyat Masīh, *alias* Salvador Bourbon, one of the Bhopāl Bourbon family, descended from the royal house of Navarre (*see* ICHHĀWAR), to represent him. The appeal was, however, rejected, and Wazīr was left to cope single-handed with his powerful enemies. In 1813 the combined forces of Gwalior and Nāgpur advanced against Bhopāl, which was defended for eight months with consummate courage and skill. A fresh siege was averted only by quarrels between Sindhia's generals and the intervention of the British Government. In 1816 Wazīr died at the age of fifty-one, after ruling Bhopāl for nine years. He was a man of remarkable character and of unrivalled valour. His manners were mild and pleasing, but his look and stature were alike commanding, and the sternness and determination of purpose in his disposition inspired awe.

He was succeeded by his second son Nazar Muhammad Khān, who had married Ghaus Muhammad's daughter, Kudsia Begam. His first action was to renew his father's appeal to the British Government. The request was complied with; and an agreement was made in 1817, by which Nazar Muhammad undertook to assist the British with a contingent force and to co-operate to his utmost in suppressing the Pindāri bands. 'No obligations,' says Malcolm, 'were ever more faithfully fulfilled.' In 1818 the terms of this agreement were embodied in a formal treaty; and the five *parganas* of Devipura, Ashta, Sehore, Durāha, and Ichhāwar were made over, together with the fort of Islāmnagar, recovered from Sindhia. Nazar Muhammad was killed soon after by the accidental discharge of a pistol. Though out of deference to Ghaus Muhammad he had never assumed the title of Nawāb, he was always so addressed by the British Government, and was in fact the real ruler. He left one child, an infant daughter, Sikandar Begam.

It was arranged, with the consent of the nobles of the State and the sanction of the British Government, that Nazar Muhammad's nephew, Munīr Muhammad Khān, should succeed under the regency of Kudsia Begam, and that Munīr should marry Sikandar Begam, thus securing the rule in Wazīr's family. To this arrangement neither Ghaus Muhammad nor any members of his immediate family raised any objections. In 1827, however, Munīr attempted to assert his authority, but, being unsupported by Kudsia Begam, resigned in favour of his younger brother Jahāngīr Muhammad Khān, and received a *jāgīr* of

Rs. 40,000 a year as compensation. Kudsia Begam, anxious to retain the power in her own hands, delayed the marriage of Jahāngīr with her daughter until 1835. Dissensions soon arose, as both Jahāngīr and Sikandar Begam wished to hold the reins of power. A plot was devised by Jahāngīr in 1837 to seize Kudsia Begam, but was detected and Jahāngīr had to fly from the State. The British Government finally mediated between them, and the management of affairs was entrusted to the Nāwāb, Kudsia Begam retiring on a life pension of 5 lakhs (Bhopāl currency).

In 1844 Nawāb Jahāngīr died, leaving a will by which he desired that his illegitimate son, Dastgīr Muhammad Khān, should succeed. This will was set aside, and the claims of his daughter Shāh Jahān Begam were recognized, Faujdār Muhammad Khān, maternal uncle of Sikandar Begam, being appointed regent. In 1847 he resigned owing to the difficulties of his position, and Sikandar Begam became regent. She was an admirable administrator and effected many salutary reforms, including the abolition of the farming of revenues and trade monopolies, the reorganization of the police and mints, and the liquidation of debt. In 1855 her daughter Shāh Jahān married Bakhshī Bākī Muhammad Khān. As he did not belong to the ruling house his status was that of Nawāb-Consort, Shāh Jahān being recognized as chief of the State, and Sikandar Begam continuing to act as regent till Shāh Jahān was of age. To this arrangement Sikandar Begam objected, on the ground that she was a chief in her own right as much as her daughter, who should not have been recognized as ruler during her life. A compromise was effected by Shāh Jahān, who voluntarily resigned all claim to rule during her mother's lifetime. Sikandar Begam was a woman of strong character, and during the disturbances of 1857 rendered signal service to the British Government. Even in the darkest hours of misfortune she never swerved for a moment from her loyalty. This was recognized by the grant in 1860 of the district of Berasiā, originally a part of Bhopāl State, which had been confiscated from the Dhār Darbār, and the award of the G.C.S.I. in 1861. In 1862 a *sanad* was granted permitting succession, on failure of natural heirs, in accordance with Muhammadan law. Sikandar Begam died in 1868, and Shāh Jahān was formally installed as the ruling chief, her daughter and only child Sultān Jahān being recognized as her heir. Bakhshī Bākī Muhammad Khān had died in 1867; and in 1871 the Begam married Maulvi Siddīk Hasan, who received the honorary title of Nawāb. Shāh Jahān, like her mother, was a woman of great administrative ability. She came out of *parda* after the death of her first husband, but retired again on her second marriage. In 1880 she agreed to defray the cost of the railway from Hoshangābād to Bhopāl, and in 1881 to abolish all transit duties on salt. In 1891

land for the Bhopāl-Ujjain line was ceded, and a contribution made towards its construction. After her second marriage dissensions arose between Shāh Jahān and her daughter, fomented by the Nawāb. By 1884 a regular *impasse* had been reached, and the Government of India was obliged to intervene and deprive the Nawāb of all his honours, titles, and salute. He died of dropsy in 1890. The State was thenceforward managed by the Begam herself, assisted by a minister. Shāh Jahān died in 1901, and was succeeded by Sultān Jahān Begam, the present ruler, who personally directs the administration of her State, assisted by Nawāb Muhammad Nasīr-ullah Khān, her eldest son. Her two other sons are Sāhibzāda Ubaid-ullah Khān, who commands the Imperial Service Lancers, and Hamīd-ullah Khān. The titles of the ruling chief are Her Highness and Nawāb Begam, and she receives a salute of 19 guns (21 within Bhopāl territory). The present Begam received the G.C.I.E. in 1904.

The principal objects of archaeological importance in Bhopāl are the great *stūpa* at SĀNCHĪ erected in the third century B.C., with its magnificent monolithic railing and finely carved gateways, and the fine old temple and dam at BHOJPUR. Numerous forts are scattered throughout the State, those at Raisen, Ginnurgarh (*see* NIZĀMAT-I-JANŪB), Siwāns, and Chaukīgarh being of some interest. Besides these places, remains of lesser importance are numerous. A colossal figure, which appears to have been once surrounded by a temple, is still standing at Mahilpur (23° 16′ N. and 78° 6′ E.). The carving is fine, and the Kaimur sandstone from which it was cut must have been brought from some distance. At Samasgarh (23° 8′ N. and 77° 23′ E.), 10 miles from Bhopāl, is a small temple in a more or less ruined state, which must have been almost a replica of the square shrine at Bhojpur. Three images, one colossal, are still standing, and the fragments of a very fine ceiling and richly carved lintel lie close by. Narwar (23° 19′ N. and 78° 0′ E.) is practically built from the remains of temples, brought, it is said, from Sācher, 4 miles north-north-west, which was destroyed about 200 years ago. Jāmgarh (23° 6′ N. and 78° 20′ E.) contains a deserted twelfth-century temple in a fair state of preservation.

Of modern buildings there are none of great note. The palaces are irregular piles, built from time to time by different rulers without any special attention to architectural beauty or fitness.

The Jāma Masjid of Kudsia Begam is constructed in modern Muhammadan style, and derives its beauty entirely from the fine coloured stone of which it is built.

It was the desire of Shāh Jahān Begam that Bhopāl should possess one mosque of surpassing grandeur. She, therefore, commenced the great Tāj-ul-Masājid, which is modelled generally on the plan of the

great mosque at Delhi. If it is ever completed, it will be the dominating feature of the city, visible from all sides. The main hall with its interarching roof, broad façade, and great courtyard presents an imposing appearance; but the foundations unfortunately are said to be too weak to admit of the erection of all three domes.

Population.

The population at the last three enumerations was: (1881) 952,486, (1891) 954,901, and (1901) 665,961, giving a density of 96 persons per square mile. During the last decade, the population decreased by no less than 30 per cent. This diminution was undoubtedly caused by the famines of 1896-7 and 1899-1900, of which the effects are even now only too patent, in the numerous ruined houses to be seen in every village. The State contains five towns: Bhopāl City (population, 77,023), the capital; Sehore (16,864, including the military station); Ashta (5,534), Ichhāwar (4,352), and Berasiā (4,276). Except the city, Sehore, and Ashta, the population has in each case fallen since 1891 to below 5,000. The villages, of which there are 3,073, belong mainly to the class with a population of under 500 persons, the average village containing 180.

The following table gives the chief statistics of population and revenue by *nizāmats* (districts):—

District.	Area in square miles.	Number of Towns.	Number of Villages.	Population (1901).	Population per square mile.	Number of persons able to read and write.	Land revenue and cesses of *khālsa* (1902-3).
							Rs.
Nizāmat-i-Shimāl .	1,417	2	842	204,445	144	Details not available.	3,57,000
Nizāmat-i-Mashrik	1,691	...	811	131,370	78		3,75,000
Nizāmat-i-Janūb .	2,191	...	798	198,104	91		8,11,000
Nizāmat-i-Maghrib	1,603	3	622	132,042	82		4,65,000
Total	6,902	5	3,073	665,961	96	29,483	20,08,000

Classified by religion, Hindus number 483,611, or 73 per cent.; Animists, 91,441, or 14 per cent. (chiefly Gonds); Musalmāns, 83,988, or 13 per cent.; and Jains, 6,397. In Bhopāl city the Muhammadan element largely predominates. The languages prevalent in the State are Western Hindī, Mālwī, and Urdū, 43 per cent. of those speaking the last language residing in the city.

The chief castes and tribes are: among Hindus, Chamārs (leather-workers and labourers), 53,783; Thākurs, Chhatris, and Rājputs, 43,711; Brāhmans, 29,076; Lodhīs (cultivators), 26,534; Balais (village servants and labourers), 24,165; Khātīs (cultivators), 19,839; Kāchhīs (cultivators, gardeners, and vegetable growers), 18,882; Ahīrs

(cowherds) and Kurmīs (cultivators), 14,000 each. Among Musalmāns, Pathāns (21,863) and Shaikhs (26,876), and among the animistic tribes, Gonds (31,809), Kirārs (22,106), and Mīnās (15,065), are the most numerous. The fall in the number of Gonds returned since 1881 indicates the growing reluctance of the members of that tribe to acknowledge their connexion with it. As many as 43 per cent. of the population are supported by agriculture, 14 per cent. by general labour, and 2 per cent. by personal service. Brāhmans and Rājputs are the principal landholders, and Lodhīs, Khātīs, Kāchhīs, and Kurmīs are the principal cultivators.

In 1901 there were 210 Christians in the State, of whom 189 resided in Bhopāl city. A branch of the Friends Mission of Sehore is located at Bhopāl.

Agriculture.

The crops in Bhopāl depend almost entirely on the rainfall, irrigation being but little resorted to. The most fertile soil in the State is found in the Nizāmat-i-Maghrib, or 'western district,' round Ashta. The soil is classed locally on two systems, either by its colour and consistency or by its position. The two principal classes are known as *kālā mati* or 'black soil,' of which there are several varieties, and *bhanwar*. The former is the well-known black cotton soil, and is used chiefly for growing wheat, *masūr*, and gram. *Bhanwar* is a grey soil of light sandy nature, not so retentive of moisture as the other, and chiefly produces *jowār* and maize, or, if irrigable, sugar-cane. Either soil is capable of bearing both autumn (*kharīf*) and spring (*rabi*) crops. Other lighter soils are chiefly devoted to the cultivation of *jowār*, maize, *kutkī*, *ramelī*, *til*, and the less important crops generally.

The chief statistics of cultivation in 1902-3 are given below, in square miles:—

Districts.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Nizāmat-i-Shimāl .	1,417	330	15	462
Nizāmat-i-Mashrik .	1,691	430	2	503
Nizāmat-i-Janūb .	2,191	625	1	477
Nizāmat-i-Maghrib .	1,603	348	25	525
Total	6,902	1,733	43	1,967

The system of cultivation is the same as that followed elsewhere in Central India. The chief *kharīf* crops are *jowār*, maize, *urd*, *tūar*, *mūng*, *kodon*, and *bājra*, with supernumerary crops of *ramelī*, cotton, and *til*. In the *rabi*, wheat, gram, and barley, with poppy, linseed, and sugar-cane, are grown. The staple food-grains for the common people are maize in the rainy season, and *jowār* and *bājra* at other times.

The rich use wheat and rice, and the jungle tribes *kodon* and *kutki* (*Panicum miliare*). The usual spices and vegetables are grown in gardens.

The average area cultivated was 2,751 square miles between 1881 and 1890, and 2,009 during the next decade. In 1901 the area decreased to 1,737 square miles. The large contraction is in part due to bad years, but mainly to the greatly reduced population, which has resulted in the abandonment of fields lying far from villages. In 1902–3 wheat occupied 671 square miles, or 39 per cent.; *jowār*, 302 square miles, or 18 per cent.; gram, 230 square miles, maize 32, poppy 25, and cotton 66. Attempts have been made to introduce new varieties of seed, but without success. Advances or loans are freely given to cultivators, and suspensions are made in bad years. In 1894, 7 lakhs were suspended, and 8 lakhs in 1000.

Irrigation and manuring are usually practised only in fields close to villages or towns, and then only in the case of crops of importance, such as poppy and sugar-cane or vegetables. Water is supplied from wells worked by water-lifts.

There are no special breeds of cattle in the State, though the grass supply is ample and large herds are kept by the villagers.

The principal fairs are those at Sehore, held in the month of Baisākh (April); the Kalu-bhān fair in the Udaipura *tahsīl* in Paus or Māgh (January or February); and the Jhagoria fair in the Bilkīsganj *tahsīl* in Chaitra (March).

Generally speaking, wages throughout the State have risen of late years, the rates having increased with the diminution of the supply of labour. Wages for agricultural operations are still paid in kind in the country. For reaping *jowār* or maize, 2 seers of the grain are given per diem; in the case of wheat, one *gawā* or bundle is given out of 20 *gawās* made up, a *gawā* weighing about 2½ seers. When the price of grain is low, more bundles are given. Labour required in the cultivation of poppy is usually paid in cash, from 2 to 2½ annas, and of late years even 3 or 4 annas, being given per diem for the *chirai* or incising operation. The crop is so valuable, and it is so essential that the different processes should be done exactly at the proper moment, that high rates have to be paid by the owners of poppy-fields. Wages for skilled labour are considerably higher in the city than in the country, blacksmiths receiving 4 annas a day in the former and 2 annas in the latter.

The prices of grain have also risen considerably in the vicinity of metalled roads or railways and in large places such as Bhopāl city. Thus, when wheat sells in the city at 15 seers to the rupee, the price at Siwāns, 64 miles from Bhopāl and off the road, is 22 seers; gram sells in Bhopāl city at 18 and at Deori at 26 seers; *jowār* in the city

at 27 and at Bilkīsganj at 35 seers; and maize in the city at 27 and in Barelī at 32 seers.

The standard of luxury is rising among the better-educated classes, and is to a certain extent permeating even the agricultural community. Many now possess holiday garments who formerly never even desired to have them. The mercantile classes have benefited most, and the class which serves as clerks least. The latter are almost always heavily indebted, being obliged to maintain an appearance beyond their means, while living in a style considerably above that in which their forefathers lived.

Forests.

The forests, which cover 1,714 square miles, are divided into three classes: 'reserved,' protected, and village-protected. The 'reserved' forests are closed to the cutting of timber. In the protected area the removal of certain trees is prohibited: namely, teak, *sāj* (*Terminalia tomentosa*), *tendū* (*Diospyros tomentosa*), *shīsham* (*Dalbergia Sissoo*), *bīja* (*Pterocarpus Marsupium*), *sandal* (*Santalum album*), and *koha* (*Terminalia Arjuna*), on account of their timber; and mango (*Mangifera indica*), *achār* (*Buchanania latifolia*), *mahuā* (*Bassia latifolia*), *khirnī* (*Mimusops hexandra*), and the date-palm (*Phoenix sylvestris*), on account of their fruit.

There are two forest officers, with an establishment for watch and ward, consisting of a *daroga* or overseer with a patrol, and the *rawāna nigār* or collector of dues. The inhabitants of villages on the forest border are allowed to have wood free, on the understanding that they protect the forest and report acts committed against forest rules. In other places villagers are allowed to cut wood free to a value of 5 per cent. of their assessed revenue. Firing grass in the neighbourhood of a forest is a criminal offence. The forest work is done by the Gonds, Kols, Korkūs, Dhānuks, and other jungle tribes, who receive Rs. 3 to Rs. 4 a month for their services. A revenue of Rs. 7,800 per annum is derived from the sale of forest produce; the expenditure is Rs. 10,600.

Minerals.

The chief mineral products are the magnificent sandstones met with in many places, which have been extensively used in construction from the building of the Sānchī *stūpa* (25 B.C.), up to the present day. At Ginnurgarh lime is worked to a small extent by the State public works department, but it is ordinarily obtained from the *kankar* or nodular limestone of the Narbadā valley. Ironstone is also found in some parts, and the metal is still worked. Jāmar village (23° 18′ N. and 78° 12′ E.) has long been famous, and the iron made here is even now preferred to that from Europe for some purposes. The stone used is a rich hematite, which is smelted with charcoal. The industry has, however, declined since the famine of 1899–1900. Till then Rs. 2,000 a year used to be advanced

by Bhopāl traders to the workmen, and the State levied a duty of Rs. 4 per furnace and one anna per maund of iron produced.

The jewellery of Bhopāl and the cloth of Sehore and Ashta have always had a high reputation. The usual coarse country cloth, blankets, and *darīs* or cotton rugs are made in the city and large towns. A combined cotton-ginning factory, saw-mill, grass-press, and flour-mill is worked by the State at Bhopāl, employing about 200 hands, paid at the rate of Rs. 4 to Rs. 7 a month.

Trade and communications.

Trade, especially that of the city, has increased enormously since the opening of the Indian Midland and Bhopāl-Ujjain Railways. The metalled feeder-roads constructed in the last twenty years have also increased the export trade from the country. The chief articles exported are grain, *til* seed, poppy seed, opium, and cotton to Bombay, lac and gum to Mirzāpur, and hides and horns to Cawnpore. The chief imports are salt from Pachbhadra in Rājputāna, sugar, European hardware, English boots and shoes, and kerosene oil. Some fine cloth is imported from CHANDERĪ in Gwalior. White metal utensils are brought from Bombay, Morādābād, and Bhīlwāra in Rājputāna. Bhopāl city, Sehore, Dīp, Barkhera, and Dīwānganj are the principal markets. A bulk oil dépôt has been established by a European firm at Bhopāl. The chief trade routes are the two railways and the metalled road from Bhopāl to Dewās and Indore via Ashta.

The principal means of communication are the Great Indian Peninsula Railway, of which the main line between Bombay and Agra passes through Bhopāl city, and the Bhopāl-Ujjain Railway connecting Bhopāl with the Rājputāna-Mālwā Railway running to Indore and Ajmer. The State contributed 50 lakhs towards the construction of the Itārsi-Bhopāl section of the Great Indian Peninsula, which is known as the Bhopāl State Railway. It is managed by the company, the State receiving dividends on the capital supplied. A similar arrangement has been made regarding the Bhopāl-Ujjain line.

The chief metalled roads are the Bhopāl-Sehore and Ashta road (47 miles), passing on to Dewās and Indore, and the feeder-roads from Bhopāl to Siampur and Hingonī (26 miles), where there is an inspection bungalow, to Narsinghgarh (17 miles), and the Bhopāl-Hoshangābād road (45 miles), now little used on account of the railway. Other feeder-roads lead from Salāmatpur station to Raisen (11½ miles), from Bhopāl to Islāmnagar (5 miles), and on to Berasiā (21 miles), besides those immediately round the city. Altogether 173 miles of metalled roads are maintained, exclusive of those round the city. The value of improved communications was immediately apparent in the famine of 1899–1900, grain pouring in and removing all danger of actual starvation.

A postal system was first introduced in 1862; but no charge was made for the carriage of letters till 1869, when the system was modified and that in British India was adopted, stamps and subsequently post-cards being sold. Four local issues of stamps have been made, but all are now obsolete. In 1901, 47,680 private letters, 951 newspapers, 513 packets, 165 parcels, and 7,268 value-payable parcels were carried. The revenue amounted to Rs. 1,900 and the expenditure to Rs. 13,000. The loss is accounted for by the free carriage of all service correspondence, amounting to 600,000 letters and packages of all sorts. The length of postal lines covered by the system in 1862 was 108 miles, and by 1901 had risen to 619 miles. There are combined post and telegraph offices at Bhopāl and Sehore, and telegraph offices at all railway stations.

Famine.

Crop failures in Bhopāl have ordinarily been due to excessive rainfall in the eastern and southern districts, a fact which may possibly be accounted for by the large extent of forest in those regions. In 1899–1900, however, the great drought which attacked all Mālwā affected this region also, and caused a very serious diminution of the population, from which the country has not yet recovered. In every village many houses are to be seen roofless and in a state of decay. In 1905 great damage was wrought to spring crops, especially poppy and gram, by hail and frost. This produced some distress and much pecuniary loss to the State and the individual cultivator, but did not cause famine, as the autumn crops were excellent.

Administration.

For administrative purposes the State is divided into four[1] districts (*nizāmats*): the NIZĀMAT-I-SHIMĀL, or 'northern district'; NIZĀMAT-I-JANŪB, or 'southern'; NIZĀMAT-I-MASHRIK, or 'eastern'; and the NIZĀMAT-I-MAGHRIB, or 'western district,' which are subdivided into *tahsīls*. There is also a special district for the city, called the *Sihkrohi*, or '6 miles radius.'

Bhopāl being a first-class State, the chief has full powers in all administrative matters, both judicial and general, including the power to pass sentence of death. Two ministers assist in the administration: the *Muīn-ul-Muhām*, who is in charge of revenue affairs; and the *Nasīr-ul-Muhām*, who has charge of police and judicial matters. There are also three councils: the *Ijlās-i-Kāmil*, of four members, which advises the chief and inquires into matters specially referred to it; the *Kamiti-i-Māl*, of eight members, which frames rules for financial matters; and the *Kamiti-i-Faujdāri*, which deals with legislative work. The other important branches of administration are: the *Deorhī-i-Khās*, or chief's private offices; the office of the State *Mufti*; the *Kāzī*, who announces *fatwas* or rulings according to the Korān; the *Majlis-i-Ulama*, consisting of four members, which decides in cases of difference

[1] Since this account was written the *nizāmats* have been reduced to three.

of opinion between the *Kāzi* and the *Mufti*; the *Muntazim*, or inspector-general of police; the public works department; the forest department; the *Vakīl-i-Riāsat*, through whom pass all communications between the chief and the Political Agent; the *Daftar-i-Nāzir*, or office of accountant-general; the *Khazāna*, or treasury; the *Bakhshigiri-hisāb*, or paymaster's office; and the *Bakhshigiri-Fauj*, or office of the commander-in-chief.

The first attempt to introduce a proper system into the judicial work of the State was made by Sikandar Begam. In 1884 her system was revised and regular courts were constituted on the British model. The lowest courts are those of the *tahsīldārs*, who are magistrates of the first or second class, appeals from them lying to the *Nāzims* in charge of *nizāmats*, and from them to the court of the *Sadr-us-Sadūr* and *Nasīr-ul-Muhām* at Bhopāl, and finally to the chief through the council. The city forms a unit, in which the jurisdiction is separate from that of the districts. The total cost of the judicial staff is Rs. 70,000 per annum. All matters of a religious nature and civil cases requiring the issue of a *fatwa*, or opinion on a point of Muhammadan law, are referred to the State *Kāzi*, from him to the *Mufti*, and in case of a difference of opinion between the *Kāzi* and *Mufti* are finally disposed of by the *Majlis-i-Ulama*.

Up to the year 1818 the financial resources of the State were of a highly unstable character, depending on the power of the ruler of the day to repel the inroads of Marāthā and Pindāri raiders. At Hayāt Muhammad's accession in 1777 the revenue was about 20 lakhs of rupees; and it was customary to devote one quarter to the personal expenses of the Nawāb, who was held to have no interest or concern with State revenues over and above this assignment, other revenues being under the control of the minister for general administrative purposes. In 1800 the revenues fell as low as Rs. 50,000. By 1818, as a result of the energetic rule of Wazīr Muhammad and his son Nazar, and the alliance with the British Government, the income rose to 9 lakhs. Sikandar Begam divided the country into three regular districts for land revenue purposes, and in 1872 Shāh Jahān Begam effected a regular settlement for a term of twenty years and redistributed the State into four districts. The total normal revenue of the State is 25 lakhs, the principal sources being land (20·1 lakhs), customs (3·1 lakhs), tribute (1·6 lakhs), excise (Rs. 40,000), and stamps (Rs. 31,000). The chief items of expenditure are: general administration (4 lakhs), chief's establishment (3 lakhs), police (1·6 lakhs), Bhopāl Infantry (2 lakhs), Imperial Service Lancers (2 lakhs), State army (3·4 lakhs). The income of alienated lands is 5·6 lakhs. Since 1897 the British rupee has been the only legal tender.

Until 1832 the revenue was collected after an appraisement of the

standing crops, and leases were granted for the year only. Since that date, however, the rates have been settled for terms of years. During the time of Sikandar Begam the farming of the revenue was abolished. It is now collected through farmers (*mustājirs*), but the rates are fixed by the State revenue department. The ordinary rates for irrigated land of good quality are Rs. 17 to Rs. 9 per acre, and for irrigated land of poorer classes Rs. 3 to Rs. 2. Unirrigated land pays from Rs. 4 to R. 1 per acre for *kālā mati*, Rs. 4 to 13 annas for *bhanwar*, and R. 1 to 3 annas for the poorest soils. When poppy or sugar-cane is grown, the rates vary from Rs. 17 to Rs. 11 per acre, and for cotton from Rs. 5 to R. 1. Some highly fertile land immediately round the city, called *nau bahār*, where special facilities exist for manuring and watering, is let for Rs. 32 per acre and produces poppy and garden crops.

Revenue is collected by the State in cash, but cultivators occasionally pay the farmers in kind. In 1837 the first settlement was made, for three years, the demand being 10 lakhs. Revisions were made from time to time, and the revenue fixed in 1855 for fifteen years amounted to 20 lakhs. The last settlement was made in 1903, for five years, with a demand of 20·8 lakhs, which gives an incidence of Rs. 1-13-4 per acre of cultivated land, and 7 annas per acre on the total area of the State. The farmers receive a commission of 10 per cent. on the revenue collected, and are unable to alter the assessed rates, but have power to eject a tenant who refuses to pay. The revenue is collected in four instalments.

An important source of miscellaneous revenue is opium. A duty of Rs. 2 was levied on each maund of *chik* or crude opium till 1904, when it was raised to Rs. 6. A further duty of Rs. 12 (Rs. 16 since 1904) is levied by the State on each chest (140 lb.) of manufactured opium taken to the Government scales. From 1881 to 1890 this duty averaged about Rs. 19,000 per annum. During the next decade the duty averaged Rs. 16,000. In 1901 only 613½ chests passed the scales, while 5 maunds were sold retail, the duty being Rs. 7,000. All opium grown for export is sent to the Government scales in the city. The fall in the out-turn is due to a series of deficient rains, and the decrease in the village population, which have made it impossible to cultivate a crop requiring so much irrigation and attention.

Excise is levied on country liquor and drugs. The country liquor, made from the flowers of the *mahuā*-tree (*Bassia latifolia*), is all distilled at the central warehouse in Bhopāl city, whence it is issued to the holders of contracts for its sale. The revenue from liquor averages about Rs. 31,000, and from drugs Rs. 9,000, giving an incidence of about one anna per head of population. In 1901, 27,553 gallons were made, bringing in Rs. 43,400 duty; and in 1903, 22,044 gallons, bringing in Rs. 35,808. The use of European liquors

s becoming common among the wealthy inhabitants of the city, but s quite unknown to the villagers. A duty was formerly levied on salt passing into the State; but this was abandoned in 1881, the British Government paying Rs. 10,000 yearly as compensation in ieu of it.

The public works department is divided into five sections. The irst is under the State Engineer (a European), and is concerned with ill roads (except those of the city), water-works, bridges, staging bungalows, and 'major' district works generally. The second section is under the *Muhtamim-i-tāmīrāt*, and is concerned with palaces, barracks, and public offices. The third section, under another official, deals with 'minor' works in the districts. The fourth is under the municipal engineer, and deals with works in the city. The last section is concerned only with the *Deorhī-i-khās*, or private residences of the chief. The department has done much excellent work. Among the principal constructions during the last ten years are the water-works which supply the whole city and its suburbs (costing 18 lakhs), the arge tent and furniture storehouse in Jahāngīrābād (2·3 lakhs), the Lady Lansdowne Hospital for women (Rs. 28,000), the Imperial Service cavalry lines (5 lakhs), the new Central jail (1·5 lakhs), and metalled oads (18 lakhs).

A regiment of Imperial Service cavalry, consisting of three squadons of 400 of all ranks, is maintained. It is called the Victoria Lancers, and is commanded by Colonel Sāhibzāda Ubaid-ullah Khān, econd son of the present ruler. The regiment is composed of five roops of Muhammadans and one of Sikhs, and costs 2 lakhs a year. The State troops are divided into two classes, regular and irregular. The former act as a personal guard to the chief, and are equipped more or less like native cavalry regiments. They number 190 of all ranks. A regiment of regular infantry, 536 strong, provides palace guards. The irregulars, who consist of 396 cavalry and 500 foot, are equipped n native style, and act as orderlies, and assist the police and district officials. Besides these, 122 artillerymen, with 24 guns and 50 horses, re also maintained. The total strength of the State army is 1,744 men, nd its annual cost about 3·4 lakhs.

A regular police force was started in 1857, and now consists of 1,700 f all ranks, giving one policeman to every 4 square miles and to every 33 persons. Constables are paid Rs. 5 to Rs. 6 a month. They arry muzzle-loading rifles in the country and truncheons in the city. mounted police force is drawn from the *intizāmia* (irregular) cavalry. he registration of finger-prints of convicted criminals has been commenced. The rural police (*chaukīdārs*) perform the duties of watch and ard in the villages. They also present a weekly report to the nearest olice station in their district, making special reports of suspicious

deaths, murders, cases of plague, cholera, or small-pox; and they assist the regular police in detecting crime.

A Central jail has been built in Bhopāl city, and there are four subordinate district jails in the *nizāmats*. The total number of prisoners in 1902–3 was 722. The annual expenditure is about Rs. 30,000.

A regular system of education was set on foot by Sikandar Begam in 1860. Shāh Jahān Begam, in order to increase the numbers attending school, forbade the employment in any State department of persons who had not obtained an educational certificate. The number of schools has risen from 93 in 1881 to 253 in 1902–3, the number of pupils in the latter year being 29,232, of whom 295 were girls. The chief institution is the Sulaimānia high school at Bhopāl city. A special school is maintained in which the State medical officer trains students in the practice of medicine, on European methods. It usually contains about 30 students. A girls' school was started in 1891 where sewing and embroidery are taught, but an attempt to teach English met with no support. No fees whatever are levied for education in the State. The annual expenditure is about Rs. 47,000. In 1901, 4·5 per cent. of the people (7·9 males and 0·9 females) were able to read and write.

A State Gazette called the *Jarīda-i-Bhopāl* is published, which is purely official in character.

The medical department was organized by Sikandar Begam in 1854, and a qualified medical officer was appointed. In 1902–3 there were two hospitals and six dispensaries, costing Rs. 16,000, with a daily average attendance of 486 patients. The Lady Lansdowne Hospital, which was opened in 1891, provides attendance for *parda* women, and a midwifery school is attached to this institution. A leper asylum was opened at Sehore in 1891. Medical treatment after the native system was provided in 1902–3 at 32 institutions, with a daily attendance of 1,380 patients, at a cost of Rs. 19,000.

Vaccination is growing in popularity, and the total number of persons vaccinated in 1902–3 was 25,048, giving a proportion of 38 per 1,000 of population.

There have been three surveys of the State. Nawāb Sikandar Begam first undertook a survey for revenue purposes, land under cultivation being measured by the Mughal chain. Shāh Jahān Begam instituted a plane-table survey, and in 1872 the State was surveyed trigonometrically by the Survey of India Department. A regular revenue survey is now in progress.

Bhopāl City (*Bhūpāl*).—Capital of the State of the same name in Central India, situated in 23° 16′ N. and 77° 25′ E., on a sandstone ridge 1,652 feet above sea-level, and occupying together with its suburbs an area of 8 square miles. Bhopāl is the junction of the

Midland section of the Great Indian Peninsula and Bhopāl-Ujjain Railways, 521 miles from Bombay.

The city stands on the edge of a great lake, the Pukhta-Pul Talao ('lake of the bridge of stone'), with a larger one, the Bara Talao ('great lake'), lying to the west. Few places can boast so picturesque a situation as Bhopāl. From the borders of the great lakes to the summit of the ridge 500 feet above it, the city rises tier on tier, an irregular mass of houses, large and small, interspersed with gardens full of big and shady trees, while in the centre the tall, dark-red minarets of the Jāma Masjid of Kudsia Begam, crowned with glittering golden spikes, tower above the city. Near the dam which separates the two lakes is a great pile of white palaces, from which a broad flight of steps leads, through a lofty gateway, to the water's edge, while upon the heights, to the west, stands Dost Muhammad's fort of Fatehgarh. Two lines of fortification embrace the city, the inner ring enclosing the old town, the *Shahr-i-khās* or 'city proper,' and the outer the more modern quarters and suburbs. The two great lakes which lie at the foot of the town are a notable feature. The larger is held up by the dam which now separates the two lakes, built, it is said, by a minister of Rājā Bhoj of Dhār. The second dam, which retains the lower lake, was built about 1794 by Chhote Khān, when minister to Nawāb Hayāt Muhammad. The area of the great lake is 2¼ square miles, and that of the lower lake ¼ square mile. The two are connected by an aqueduct, admitting of the control of the flow and the regulation of the water-supply of the city, which is drawn from the lakes. Water is pumped up from the upper lake by an engine, and from the lower by a water-wheel worked from the overflow.

Tradition relates that the city stands on the site of an old town founded by Rājā Bhoj of Dhār (1010–53), who is credited with the erection of the old fort, near the quarter of the town still known as Bhojpura, and till lately used as a jail. A Rānī of Rājā Udayāditya Paramāra (1059–80), grandson of Bhoj, is said to have founded a temple known as the Sabha-mandala, which was completed in 1184, and occupied the site on which the Jāma Masjid of Kudsia Begam now stands. It appears, however, that no town of any size existed here, though possibly one was in contemplation or even commenced. This is easily accounted for by the declining power of the Paramāra chiefs of Dhār at the period. In 1728 Dost Muhammad built the Fatehgarh fort, and connected it with the old fort of Rājā Bhoj by a wall, which he carried on till it enclosed a site large enough for the city; the area so enclosed is that still known as the *Shahr-i-khās*, or 'city proper.'

In Nawāb Yār Muhammad's time the capital was situated at Islāmnagar (23° 22′ N., and 77° 25′ E.); but Faiz Muhammad returned to Bhopāl, which has since been the chief town. In 1812–3, during the attacks by the Nāgpur and Gwalior forces, the whole town outside the

great wall was laid in ruins, and it was not till Nazar Muhammad's rule in the nineteenth century that it commenced to recover. Times were, however, still unsettled, and the houses erected even then were poor structures with thatched roofs. Up to the end of Kudsia Begam's rule, indeed, the population consisted mainly of Afghān adventurers seeking military service, who had no intention of settling down. Nawāb Jahāngīr, however, tried to induce people to settle permanently and build good houses. As a preliminary step he himself removed the troops, a somewhat disturbing element, out of the city limits to Jahāngīrābād on the south side of the lake. Sikandar Begam on her accession, with the characteristic energy which distinguished her rule in every branch, at once set to work to improve the city by making proper roads and lighting them with lamps. Shāh Jahān Begam added many buildings, of which the Tāj Mahal and Bārā Mahal palaces, the great Tāj-ul-Masājid mosque as yet incomplete, the Lāl Kothī, the new Central or Prince of Wales's Hospital, the Lady Lansdowne Hospital for women, and the new jail are the most important. Many buildings are being added by the present chief, who is founding the new suburb of Ahmadābād some distance west of the city.

There are no buildings of antiquarian interest and few of architectural merit in the city. Many of the streets, however, are by no means devoid of beauty, the irregularity of the houses which form them, the sudden turns, and the great gateways which pierce the walls of bigger dwellings adding much to the picturesqueness. Of individual buildings, the great unfinished mosque of Shāh Jahān Begam is the only one with any pretensions to architectural merit, though the Jāma Masjid of Kudsia Begam, built of a fine purple-red sandstone, and the Moti Masjid are not unpleasing. The palaces, an irregular pile of buildings added to by each successive ruler and constructed without any definite plan, have little to recommend them. The influence of European architecture is noticeable everywhere, and markedly so in the buildings now under construction.

The Fatehgarh fort, built in the usual style, can never have been a very formidable stronghold as regards either its position or structure. It now contains a State granary, an arsenal of old arms, and nine old guns on the ramparts. A finely illuminated copy of the Korān, 5 feet 2½ inches long, is also kept here.

Since the opening of the Great Indian Peninsula Railway line in 1885, and the Bhopāl-Ujjain branch in 1895, the trade of the city has expanded rapidly and with it the population, which has been: (1881) 55,402, (1891) 70,338, and (1901) 77,023. Hindus number 33,052, or 43 per cent.; Musalmāns, 41,888, or 54 per cent.; and Jains, 1,327.

The principal articles exported are grain, cotton, poppy seeds, *til*, opium, *ghī*, hides, and horns; the imports are salt, sugar, hardware, and

piece-goods. The chief industries are weaving and printing of cotton cloth, the making of jewellery, and the preparation of *gutkā*, a mixture of saffron, lime, and other ingredients eaten with betel-leaf, of which the Bhopāl variety is famous all over India. A combined cotton-ginning factory, saw-mill, grass-press, and flour-mill is worked by the State, and a bulk oil dépôt has been established here by a European firm.

The city is managed by a municipality, which was constituted in 1903. The members of the committee are nominated by the State and number 39, of whom 5 are officials appointed *ex officio*, including the State engineer and medical officer; of the rest, 11 are selected from among officials, and 23 from non-officials. The municipal income is Rs. 50,000 a year, allotted from State revenues. The conservancy, lighting, and maintenance of roads, demolition of dangerous buildings, and control of cemeteries are the most important functions of the committee. There is a police fôrce of 416 men under a special officer. Bhopāl contains a school for the sons of State Sardārs under a European principal, and three other State schools with about 600 pupils, besides numerous private institutions. Special schools for instruction in medicine and midwifery are attached to the Prince of Wales's and Lady Lansdowne Hospitals; there are also two girls' schools, and an industrial school for females. Seven hospitals and dispensaries are maintained in the city, besides three institutions for medical treatment after native methods.

Bhopāwar Agency.—A Political Charge under the Central India Agency, lying between 21° 22′ and 23° 14′ N. and 74′ 2° and 76° 31′ E., with an area of about 7,684 square miles. It is bounded on the north by Ratlām, the Indore Residency, Dewās, and Gwalior; on the south by the Khāndesh District of Bombay; on the east by British Nimār and the Bhopāl State; and on the west by the Rewā Kāntha Agency.

The physical aspects of the Agency vary markedly in different parts. The two great ranges of the Vindhyas and Sātpurās traverse it from east to west, enfolding between them the broad and fertile valley of the Narbadā. To the north, beyond the Vindhyas, the greater part of the Dhār State and the Amjhera district lie on the open Mālwā plateau. Below is the Narbadā valley, and farther south the mountainous forest-clad region, in which the Alī-Rājpur, Barwānī, and Jobat States lie, known as Bhīlwāra or the 'Bhīl country,' a wild and sparsely inhabited tract. The famous stronghold of MĀNDU, the Buddhist caves of BĀGH, and the sacred hill of Bāwangaja near BARWĀNĪ, are situated in this charge, while numerous ruined forts, mosques, and palaces, now buried deep in jungle, testify to its prosperity and importance in Mughal days, when it formed a part of the Bijāgarh *sarkār* of the *Sūbah* of Mālwā.

The population in 1901 was 547,546, of whom Hindus numbered 257,408, or 47 per cent.; Animists, 250,042, or 46 per cent.; Musal-

māns, 29,895, or 5 per cent.; and Jains, 9,721. The density is 75 persons per square mile. The Agency contains three towns, DHĀR (population, 17,792), BARWĀNĪ (6,277), and KUKSHI (5,402); and 3,031 villages.

The charge was originally divided into two sections, known as the Bhīl and Deputy Bhīl Agencies, with head-quarters at Bhopāwar and Mānpur respectively. In 1857, after the Political officer's residence at Bhopāwar was destroyed by the mutineers, the head-quarters were removed to Sardārpur, when the officer commanding the Bhīl Corps was entrusted with the political control of the Agency. The civil work later on proved too heavy, and a separate Political officer was considered necessary. In 1882, therefore, the Bhīl and Deputy Bhīl Agencies were amalgamated, and a regular Agency was constituted with head-quarters at Sardārpur. Following the creation, in 1899, of the Indore Residency, all but three of the Indore State *parganas*, formerly included in this charge, were transferred to the Resident in 1904. In 1901 the Bāgaud *pargana* of Dewās, made over to the British Government for administrative purposes in 1828, was transferred to the Indore Agency. The charge now comprises the treaty State of DHĀR; the mediatized States of JHĀBUA, BARWĀNĪ, ALĪ-RĀJPUR, and JOBAT; eighteen guaranteed *thakurāts* and *bhūmiāts*, the latter holding chiefly from the Dhār State; the three Indore *parganas* of Chikalda, Lawānī (*see* NIMĀR ZILA), and Petlāwad (*see* INDORE ZILA); the Gwalior district of AMJHERA; and the British district of MĀNPUR. None of the guaranteed estates receives any allowance from, or pays any tribute to, the British Government.

The Political Agent exercises the powers of a District Magistrate and a Court of Sessions within the limits of his charge, except in States where such powers are exercised by the chiefs, and also on that portion of the Godhra-Ratlām branch of the Bombay, Baroda, and Central India Railway which passes through the Jhābua State east of the Mahī river.

The Agra-Bombay and Mhow-Nīmach high roads and the Ratlām-Godhra branch of the Bombay, Baroda, and Central India Railway traverse the charge.

The Agency comprises the States, portions of States, and estates shown on the opposite page.

Bhor State.—State in the Poona Political Agency, Bombay, lying between 18° and 18° 45′ N. and 73° 14′ and 73° 15′ E., with an area of 925 square miles. From the Mahādeo Hills in Sātāra District Bhor stretches north-west over the Western Ghāts in the south-west of Poona and east of Kolāba, with a breadth varying from 35 miles in the south to 15 miles in the north. Above the Western Ghāts, the Muthā flows in the north and the Nīra in the south, and below

the hills the Ambā flows south-west. The State is occupied by basaltic rocks of the Deccan formation. The climate of that part which is above the Ghāts resembles that of Poona, and the climate of the portion below that of Kolāba. The rainfall varies from 26 inches at Vichitragarh to 139 inches at Sudhāgarh. The annual fall at Bhor averages 37 inches.

Name.	Title.	Caste, clan, &c.	Area in square miles.	Population, 1901.	Total revenue.
					Rs.
1. Dhār (portion)	H. H. Rājā	Ponwār Marāthā	1,765	140,700	9,00,000
2. Jhābua	H. H. Rājā	Rāthor Rājput	1,336	80,889	1,10,000
3. Barwānī	Rānā	Sesodia Rājput	1,178	76,136	4,00,000
4. Alī-Rājpur	Rānā	Rāthor Rājput	836	50,185	1,00,000
5. Jobat	Rānā	Rāthor Rājput	140	9,443	21,000
6. Bakhtgarh	Thākur	Ponwār Rājput	65	6,774	60,000
7. Bhārudpura	Bhūmia	Bhilāla	22	1,259	6,000
8. Barkhera (*chhota*)	Bhūmia	Bhilāla	23	1,929	5,000
9. Barkhera (*mota*)	Bhūmia	Bhilāla	44	6,027	25,000
10. Chiktiābar	Bhūmia	Bhilāla	2	283	825
11. Dhotria (or Bhaisola)	Thākur	Rāthor Rājput	16	3,040	12,000
12. Garhī (or Bhaisākho)	Bhūmia	Bhilāla	6	564	3,000
13. Jāmnia	Bhūmia	Bhilāla	40	2,877	24,000
14. Kāchhī-Baroda	Thākur	Rāthor Rājput	44	2,783	30,000
15. Kāli Baorī	Bhūmia	Bhilāla	12	1,646	6,000
16. Kathiwāra	Thākur	Jādon Rājput	69	3,425	4,000
17. Kathoria	Bhūmia	Bhilāla	...	...	2,000
18. Kothideh	Bhūmia	Bhilāla	10	328	1,400
19. Mathwār	Rānā	Ponwār Rājput	65	1,022	4,000
20. Multhān	Thākur	Rāthor Rājput	91	7,644	60,000
21. Nīmkhera (or Tirla)	Bhūmia	Bhilāla	91	4,641	18,000
22. Rājgarh	Bhūmia	Bhilāla	20	682	5,000
23. Ratanmāl	Thākur	Ponwār Rājput	32	1,200	5,000
24. Mānpur (British)	... ...	... ...	60	4,890	19,800
25. Gwalior (portion)	... ...	... ...	1,275	96,426	58,000
26. Indore (portion)	... ...	... ...	442	39,343	1,56,600
Railways and military station	... ...	... ...	...	3,410	...
		Total	7,684	547,546	20,36,625

NOTE.—The areas of Nos. 6-15, 17, 18, 20, 21, and 22 have also been included in their parent States of Dhar, Gwalior, and Indore.

Bhor is one of the feudatories of the Sātāra State, having been bestowed upon Shankrāji Nārāyan, Pant Sachiv, in 1697 by Rājā Rām, the son of Sivajī, for his services. The family of the chief are Brāhmans, and hold a *sanad* authorizing adoption. They follow the rule of primogeniture, and the succession has been maintained by several adoptions. The State was allied with the British Government by a treaty of 1820, and became a feudatory like other Sātāra *jāgīrs* on the lapse of the Sātāra State in 1849. From that year to 1887 it

was under the political control of the Collector of Sātāra, but was then transferred to Poona. The chief has the title of Pandit of Bhor and Pant Sachiv, and ranks as a first-class Sardār of the Deccan. A tribute of Rs. 10,000, being the commuted value of an elephant subsidy once annually furnished by the chief, is paid to the British Government. The present chief has enjoyed a personal salute of 9 guns since the Delhi Darbār of 1903, in recognition of his loyalty and efficient administration.

The population was 137,268 in 1901, compared with 155,699 in 1891, inhabiting one town (BHOR) and 483 villages. Shirwal, a municipal village, contains a series of Buddhistic caves of the same plain type as KARĀD in Sātāra District. Hindus number 135,000 and Musalmāns 1,700. The principal castes are Brāhmans (5,000), Marāthās (75,000), Kunbīs (14,000), Dhangars (5,000), and Mahārs (14,000). Except a few cotton-weavers, the great majority of the people are supported by agriculture.

The prevailing type of soil is red. About 404 square miles are occupied for cultivation. The principal crops are rice and *nāgli*. A small area of land is irrigated from wells and fair-season dams. The area of forests is 104 square miles. Iron-smelting, formerly of some importance, has been abandoned, and the State is poor in industries. The chief roads are the Mahād-Pandharpur (cart-road), Poona-Belgaum (mail-road), and the Poona-Panvel road down the Bhor *ghāt*. Bhor contains seven post offices managed by the State, and is one of the States in Bombay which have postal arrangements of their own.

The State suffered severely from famine in 1896–7 and again in 1899–1900. Relief measures were necessary on both occasions. In the latter famine the maximum number of workers was 2,000, and nearly Rs. 63,000 was spent on famine relief. The State has also suffered from plague.

Bhor is under the political supervision of the Collector of Poona, and the administration is conducted in close accordance with British laws. Criminal and civil justice are administered by the chief himself, with the aid of subordinate courts. Except that the trial of all persons for capital offences requires the Political Agent's sanction, the Pant Sachiv exercises full criminal and civil powers, and his decision in such cases is not subject to appeal to the Political Agent. The revenue is 3½ lakhs, chiefly derived from land (2¼ lakhs), excise (Rs. 20,000), and forests (Rs. 11,000). The State has recently (1896–9) been surveyed and the rates of assessment vary from Rs. 12 to one anna per acre. This settlement enhanced the revenue by Rs. 24,500. The State contains two municipalities, BHOR and Shirwal, with an aggregate income in 1903–4 of Rs. 5,240. The police force consists of 215 men. There are 43 schools with 1,545 pupils. The Bhor

dispensary treated 19,256 patients in 1903–4 at a cost of Rs. 2,000. In the same year 3,716 persons were vaccinated.

Bhor Town.—Chief town of the State of Bhor, Bombay, situated in 18° 9′ N. and 73° 53′ E., 25 miles south of Poona. Population (1901), 4,178. It is administered as a municipality, with an income of Rs. 4,190 in 1903–4.

Bhor Ghāt.—Pass across the Western Ghāts, in Poona District, Bombay. *See* BORGHĀT.

Bhosari.—Village in Poona District, Bombay. *See* BHAVSARI.

Bhowal.—Petty State in the Khāsi Hills, Assam. The population in 1901 was 865, and the gross revenue in 1903–4 was Rs. 900. The principal products are rice, millet, bay-leaves, black pepper, and lime.

Bhowāni.—River in Coimbatore District, Madras. *See* BHAVĀNI.

Bhuban Hills.—A range of hills projecting from the Lushai system into the south of Cāchār District, Eastern Bengal and Assam. They run north and south between 24° 15′ and 24° 45′ N. and 92° 52′ and 93° 5′ E., on the eastern border of the District, forming the watershed between the Barāk and Sonai rivers. Their height varies from 700 feet to 3,000 feet, and their slopes are very precipitous. They are formed of sandstones and shales of Tertiary origin, thrown into long folds. A temple sacred to Bhuban Baba, a local name for Siva, stands on the summit of a hill about 30 miles south-east of Silchar. Manipurīs, up-country men, and garden coolies resort to this place on the occasion of the Sivarātri, the Srīpanchami, and the Barunisnan festivals, when they bathe in a tank in the neighbourhood of the temple, and make offerings at the shrine.

Bhuban Town.—Town in Dhenkānāl, one of the Orissa Tributary States, Bengal, situated in 20° 53′ N. and 85° 50′ E., on the north bank of the Brāhmanī river, about 14 miles from Jenāpur station on the Bengal-Nāgpur Railway. Population (1901), 6,788. Bhuban has a local reputation for its manufacture of bell-metal ware.

Bhubaneswar.—Temple city of Siva in the Khurdā subdivision of Purī District, Bengal, situated in 20° 15′ N. and 85° 50′ E., 3 miles from the Bengal-Nāgpur Railway. Population (1901), 3,053. Its traditions date from remote antiquity, when it was distinguished for nothing more than a single mango-tree (*ekāmravana*), whence the name Ekāmratīrtha.

Bhubaneswar was the great seat of Saivism in Orissa, and all the great temples here are consecrated to the *lingam*, the emblem of the 'great god' Mahādeo. It is said that it was originally intended as a rival of Benares, and that no details were omitted to make it an exact counterpart of its prototype. Tradition attributes the foundation of the various temples at Bhubaneswar to the kings of the Kesari dynasty, who are supposed to have ruled over Orissa from the sixth to the

twelfth century A.D.; but the existence of this dynasty is doubtful, and the only true dates known with some certainty are those of the temples of Brahmeswar, Megheswar, and Ananta Bāsudeva, all of which were built towards the end of the twelfth century. With regard to the remainder, we are left entirely in the dark; but it may well be surmised that the sanctity of the place and of many of its holy shrines goes back to much earlier ages. According to popular belief, 7,000 shrines once clustered round the sacred lake of Bhubaneswar; but at present scarcely more than 100 remain. They exhibit a variety of architectural types, some being plain single towers, others having porches and halls in front with elaborate mouldings.

The best and most interesting specimens among the vast number of ancient temples at this famous place are the following: the great Lingarāj temple, with the temple of Bhagavatī within its compound, the temple of Ananta Bāsudeva, the temple of Mukteswar, the Rājā-Rānī temple, the temple of Brahmeswar, the temple of Bhāskareswar, the Vaitalā *deul*, and the temple of Parasu Rāmeswar. The Lingarāj temple stands within a large courtyard surrounded by a high wall. The temple includes a suite of four buildings standing in file, called the *deul* or temple proper, the *mohan* or porch, the *bhogmandir* or refectory, and the *nātmandir* or dancing hall. Of these the first two were built at the same time and in a style quite different from the others, which were built long after at different times and on different plans. The form in which Bhubaneswar (Lord of the Universe) is represented in the sanctuary is that of a huge uncarved block of granite called the *lingam*, about 8 feet in diameter and rising 8 inches above the level of the floor. It is half buried in the centre of the room, and is surrounded by a raised rim of block chlorite ending on the north side in a point. This rim is called the *yoni* or the female emblem. All these temples have recently been repaired by Government and are now in a fair state of preservation. The temple of Bhāskareswar is a unique structure, with a huge stone *lingam* inside reaching from the ground to the upper storey of the temple. The town also contains three sacred tanks: the Bindu Sāgar or Gosāgar, measuring 1,400 by 1,100 feet, the Sahasra *lingam*, and the Pāpanāsinī.

[*List of Ancient Monuments in Bengal* (Calcutta, 1896), and *Report of the Archaeological Survey of India for* 1902–3 (Calcutta, 1904).]

Bhuiyā (or Bhuinhār).—An aboriginal tribe of Bengal, numbering in 1901 nearly two-thirds of a million, most of whom were found in the Chotā Nāgpur plateau, the Santāl Parganas alone containing 119,000. The word Bhuiyā is a Sanskrit derivative, and in some parts of Bengal it is merely a titular designation adopted by various castes. In some places, on the other hand, it is unequivocally recognized as a tribal designation; and it is a plausible conjecture that the tribal Bhuiyās

properly so called came originally from the Tributary States of Orissa and Chotā Nāgpur, where the organization of the tribe is at the present day more complete than elsewhere. They seem to have been displaced in Singhbhūm by the Hos, in Rānchī by the Mundās and Oraons, and in Mānbhūm by the Bhumijs; but in Hazāribāgh the tribe again gathers strength, and in South Bihār we meet with them in large numbers bearing the opprobrious name of Musahar or 'rat-eater,' but invariably calling themselves by their original tribal designation. The physical characteristics and the traditions of the Bhuiyās vary considerably in different places; but they all affect great reverence for the memory of Rikhmun or Rikhiasan, whom they regard, some as a patron deity, and others as a mythical ancestor, whose name distinguishes one of the divisions of the tribe. It seems probable that in the earliest stage of belief Rikhmun was the bear-totem of a sept of the tribe, and that later on he was transformed into an ancestral hero, and finally promoted to the rank of a tribal god. However this may be, his cult is peculiar to the Bhuiyās, and serves to link together the scattered branches of the tribe.

Bhūj.—Capital of the State of Cutch, Bombay, situated in 23° 15′ N. and 69° 48′ E., at the base of a fortified hill. Population (1901), 26,362, including 995 in cantonments. Bhūj is a municipal town, and has a post office, a Central jail, a high school, a school of art, a library, a hospital, and a dispensary. It also contains a forest nursery, with about 1,600 plants. The municipal income in 1903-4 was Rs. 11,600. The income of the cantonment fund was Rs. 1,776 and the expenditure Rs. 1,775. The dispensary in the same year treated 28,000 patients, while 619 in- and 12,677 out-patients were treated in the Bhūj hospital. A lunatic asylum contained nine inmates in 1903-4. The place is chiefly interesting for its archaeological monuments, and as having been at an early period dedicated to the snake divinity Bhūjanga or Bhūjiya. None of the buildings in the town is of earlier date than the middle of the sixteenth century. The mosque inside the city gate is remarkable for the thickness of its piers and their closeness to one another—an arrangement by which only a few of the worshippers can ever be within sight of the rest. The town contains the tomb of a *pīr*, and in its neighbourhood are a number of shrines and Muhammadan *dargāhs* of no special importance.

Bhūkarherī.—Town in the Jānsath *tahsīl* of Muzaffarnagar District, United Provinces, situated in 29° 30′ N. and 71° 57′ E., 15 miles from Muzaffarnagar town. Population (1901), 6,316. The inhabitants are chiefly Jāts, whose ancestors attained considerable power in the days of Pathān supremacy. There is an old tomb of a saint who is reverenced throughout Northern India by the Hindus as Gharīb Nāth, and by the Muhammadans as Gharīb Shāh.

Bhuluā (or Bhullooah).—Old name of NOĀKHĀLI DISTRICT, Eastern Bengal and Assam.

Bhumij.—An aboriginal tribe found mainly in the Chotā Nāgpur Division of Bengal and very closely allied to the Mundās, of whom they may perhaps be regarded as an offshoot that has lost some of its tribal peculiarities by contact with the people of the plains. The tribe numbered 328,000 in 1901, and a third of them are inhabitants of Mānbhūm, the remainder being distributed over the Orissa Tributary States, Singhbhūm, and Midnapore. Nearly all call themselves Hindus, and in this respect they present a marked contrast to the Mundās, Hos, and Santāls, the majority of whose members are Animists. About a third still speak a form of Mundārī, mainly in Singhbhūm and Midnapore and in the Orissa States; elsewhere Bengali is commonly spoken. The Bhumijs were in former days very turbulent, and under the nickname of *chors* ('robbers') were the terror of the surrounding Districts. The last disturbance occurred in 1832, when a quarrel arose about the succession to the Barābhūm estate, and one Gangā Nārāyan, at the head of a body of Bhumij insurgents, plundered the whole country. The officials and police fell back on Burdwān, and a strong military force had to take the field. Gangā Nārāyan was killed in an attempt to storm the fort of the Thākur of Kharsāwān, and the insurgents then submitted.

Bhūpāl.—State and city in Central India. *See* BHOPĀL.

Bhurtpore.—State and city in Rājputāna. *See* BHARATPUR.

Bhusāwal Tāluka.—*Tāluka* of East Khāndesh District, Bombay, including the petty subdivision or *pethī* of Edalābād, and lying between 20° 47′ and 21° 14′ N. and 75° 41′ and 76° 24′ E., with an area of 570 square miles. There are three towns, BHUSĀWAL (population, 16,363), the head-quarters, BODVAD (5,670), and VARANGAON 5,822); and 180 villages. The population in 1901 was 109,315, compared with 114,011 in 1891. The density, 192 persons per square mile, exceeds the District average. The demand for land revenue in 1903–4 was 3·5 lakhs, and for cesses Rs. 24,000. To the north-west and along the Tāpti the country is flat and monotonous. The north-east of the *tāluka*, though flat, is here and there broken by *babūl* groves, especially along the banks of the Pūrna. The rest is more or less undulating, with straggling hillocks covered with loose stones and boulders. Along the north-east boundary runs a bold range of hills. The *tāluka* is scantily wooded, and without the mango groves so abundant in other parts of the District. The tract between the Pūrna river and the hills from the Suki river to the eastern frontier is ruined by its deadly climate, and repeated attempts to recolonize deserted villages have failed. Elsewhere, the *tāluka* is fairly healthy. There is plenty of surface water. Besides the Tāpti river in the north, with its

tributaries the Pūrna and Vāghur, and the minor streams the Sur and Bhogāvatī, there are more than 2,500 irrigation wells. The Hartala lake, with a catchment area of 6 square miles and a capacity of 140,000,000 cubic feet of water, lies on a small tributary of the Tāpti and commands 584 acres. As an irrigation work it has not proved altogether a success. Of the two kinds of black soil, the rich alluvial clay found north of Edalābād cannot be surpassed. In the east of Kurha, where it gives place to a rich black loam, it yields the finest crops. The other soils are mostly mixed red and brown. In the north-east the soil is poor, and the waste lands are generally dry and rocky. Along the river-banks are small alluvial plots called *dehli*. The annual rainfall at Bhusāwal town averages 26 inches.

Bhusāwal Town.—Head-quarters of the *tāluka* of the same name in East Khāndesh District, Bombay, situated in 21° 3′ N. and 75° 47′ E., 64 miles east of Dhūlia, at the junction of the Nāgpur branch with the main line of the Great Indian Peninsula Railway. Population (1901), 16,363. Until the opening of the railway, Bhusāwal was a petty village. It has since become an important centre, with large railway works, and a considerable European population, and is the head-quarters of a subdivisional officer. A branch of the American Alliance Mission is at work, and maintains two schools. About 1,500 workmen are regularly employed here, of whom 100 are European or Eurasian engine-drivers and mechanics. The requirements of so many railway employés have attracted shopkeepers of all descriptions, but their business is confined to the supply of local wants. The railway premises consist of a handsome station, large locomotive workshops, and houses for the employés. The water-supply is brought from the Tāpti by means of a steam pump and pipe. The water is driven up to a large tank on the top of a handsome two-storeyed building, the lower storey being used as a billiard-room and the upper as a library. Gardens have been laid out, and tree-planting encouraged to such an extent that the site, formerly an open field, is now somewhat overgrown with trees. The village of Bhusāwal is on the opposite side of the line to the railway buildings. There is a large resthouse outside the railway gate for natives. Two ginning factories and two cotton-presses are busily employed during the season. Bhusāwal was acquired by the British Government with the rest of the Varangaon (now Bhusāwal) *tāluka* in 1861. It was constituted a municipality in 1882, and had an average income during the decade ending 1901 of Rs. 16,000. In 1903–4 the income was nearly Rs. 20,000, chiefly derived from a tax on houses and lands (Rs. 8,400) and grants for education (Rs. 5,000). The town contains a Subordinate Judge's court, three English schools, two vernacular schools, and two dispensaries, including one belonging to the railway company.

Bhutān.—Independent State in the Eastern Himālayas, lying between 26° 41′ and 28° 7′ N. and 88° 54′ and 91° 54′ E. It is bounded on the north by Tibet; on the east by the Towang country, a narrow outlying dependency of Tibet that stretches southwards to the confines of Assam; on the south by Goālpāra, Kāmrūp, and Jalpaigurī Districts; and on the west by the Chumbi Valley, the State of Sikkim, and Darjeeling District.

Physical aspects.

The lofty peaks and ranges of the Himālayas extend along the whole of the northern boundary of Bhutān, and great spurs stretching southwards from the main chain along its eastern and western boundaries. Within these mighty natural barriers is a succession of hill ranges, the general direction of which in Western Bhutān is from north-west to south-east and in Eastern Bhutān from north-east to south-west. The ridges are mostly steep, and separated from each other by deep valleys running far back into the mountains. The Dongkya range, which divides Sikkim from the Chumbi Valley, bifurcates at Gipmochi (on the western shoulder of which is the trijunction point of the Sikkim-Bhutān-Tibet boundary) into two great spurs, one running to the south-east and the other to the south-west, including between them the valley of the Di-chu[1] or Jaldhākā river. From CHUMALHARI on the Tibetan boundary at the north-west corner of Bhutān another ridge strikes southwards between the basins of the Torsā (the Chumbi Valley) and Raidāk rivers, and terminates in the SINCHULĀ hills which form the boundary between Jalpaigurī District and Bhutān. Farther east very little is known of the main chain, but it has been ascertained that its chief offshoots trend southwards: these include the Black mountain range, with ramifications south-west and south-east in the Tongsa division; the Yato La, from peak B (24,737 feet) north of Tongsa; the Rudu La range; the Donga range, from a peak north of Donga La (20,965 feet); the Kollong range, from the Daud peak (20,576 feet); and, in the extreme east, a range springing from the three peaks E (21,278 feet), F (23,066 feet), and H (22,422 feet), with ramifications in a south-east direction, on one of which Dewāngiri is situated. The last-mentioned range probably forms the true boundary between Bhutān and Towang. This mountainous region sends out numerous rivers in a more or less southerly direction, all of which eventually find their way into the Brahmaputra. Their courses in Bhutān are confined between high rocky mountains; and as the gradients of their beds have a very steep fall, they are furious torrents in the rains, and hardly any of them are fordable at this period of the year. Proceeding from west to east, the chief rivers are the Di-chu, Amo-chu or TORSA, Chin-chu, Ma-chu, Mati-chu, and Dangme-chu. The Di-chu, which rises in a lake near Gipmochi,

[1] *Di* is the Bodo and *chu* the Tibetan word for 'water' or 'river.'

forms the boundary between Bhutān and Darjeeling District during the last twelve miles of its course in the mountains. The Amo-chu rises below the Tang pass, which forms the connecting link across the Tibetan table-land of the main range of the Himālayas and also the watershed between the streams running northwards and southwards, and after flowing through the Chumbi Valley for about 6 miles enters Bhutān. Soon after it runs through a steep and narrow gorge, and below this through a valley which is believed to have an easy gradient, and which has been prospected for a road connecting Tibet with Bengal. The Chin-chu rises in the eastern and southern slopes of the Chumalhari range, and, after flowing in a south-easterly direction for about 200 miles through Bhutān, enters the Duārs not far from the eastern border of Jalpaigurī, where it is known as the Ninagaon river. The Ma-chu rises in Tibet, and, after a course in Bhutān of about 180 miles past Punaka, debouches on the borders of Jalpaigurī and Goālpāra, where it is called the Sankosh. The Dangme-chu, which is believed to rise in Tibet, flows in a south-westerly direction through Bhutān, and on emerging into the plains, where it is known as the Manās, once formed the boundary between the Kāmrūp and Goālpāra Districts of Assam.

As far as is known, the lower mountain ranges are composed chiefly of a coarse and decomposing granite sandstone. Gneiss, hornblendic slate, micaceous slate, and brown and ochre-coloured sandstones form the boulders in the beds of the streams in the ascent from the plains. The rocks at the highest elevation consist of gneiss, rising through upheaved strata of mica and talcose slate. At an elevation of 8,000 or 9,000 feet a talcose slate has been observed, thickly disseminated with garnets and in some cases threaded with large grains of titaniferous iron ore. Limestone formations on a large scale extend from Chingi to Santso, and another limestone formation from Pomekpu to Tassisūdra and thence to the plains at Buxa.

Above 5,000 feet the mountain slopes are generally covered with forest abounding in many varieties of stately trees, including the beech, ash, birch, maple, cypress, and yew. At an elevation of 8,000 or 9,000 feet is a zone of vegetation consisting principally of oaks and rhododendrons, and above this again is a profusion of firs and pines.

The lower ranges of the hills teem with animal life. Tigers are not common, except near the river Tīsta, but elephants are so numerous as to be dangerous to travellers. Leopards abound in the valleys and deer everywhere, some of them of a very large species. The musk deer (*Moschus moschiferus*) is found in the snows, and the barking-deer (*Cervulus muntjac*) on every hill-side. Wild hog are met with even at great elevations. Bears and rhinoceros are also found. Large squirrels are common, and pheasants, partridges, jungle-fowl, pigeons, and other small game abound.

The climate of Bhutān varies with the elevation: the cold of Siberia, the heat of Africa, and the pleasant warmth of Italy may all be experienced in the course of a single day's journey. At the time when the inhabitants of Punaka are afraid of exposing themselves to the blazing sun, those of Ghāsa experience all the rigour of winter and are chilled by perpetual snows. Yet these two places are within sight of each other. The rains descend in floods upon the heights, but in the vicinity of Trashichödzong and Punaka they are moderate; there are frequent showers, but nothing that can be compared to the tropical rains of Bengal. Owing to the great elevation and steepness of the mountains, terrible storms arise among the hollows, which are often attended with fatal results.

History.

Bhutān has not long been in the possession of its present rulers. It formerly belonged to a tribe called by the Bhotiās Tephū, who are believed to have been of the same race as the Kachāris and Koch of the adjoining plains, and who were subjugated about two centuries ago by a band of Tibetan soldiers. The latter settled down in the country and intermarried with the aborigines, and from them have sprung the people now called Bhotiās. There are still various servile tribes in the country regarding whom very little is yet known, but we may surmise that they are descended from more or less pure remnants of the earlier inhabitants. The relations of the British with Bhutān commenced in 1772, when the Bhotiās invaded the principality of Cooch Behār. The ruler of that State invoked British aid, and a force was dispatched to his assistance under Captain James, who expelled the invaders and pursued them into their own territory. Peace was concluded in 1774 through the mediation of the Tashi Lāma, then regent of Tibet. In 1783 Captain Turner was deputed to Bhutān, with a view to promoting commercial intercourse, but his mission proved unsuccessful. From this period few dealings took place with Bhutān until the occupation of Assam by the British in 1826. It was then discovered that the Bhotiās had usurped the strip of lowland lying along the foot of the mountains, called the Duārs or passes, and for these they agreed to pay a small tribute. They failed to do so, however, and availed themselves of the command of the passes to commit depredations in British territory. Captain Pemberton was deputed to Bhutān to adjust the points of difference, but his negotiations yielded no result; and every other means of obtaining redress and security having proved unsuccessful, the Assam Duārs were taken from the Bhotiās, and, in lieu of them, an annual payment of Rs. 10,000 was promised to the hillmen so long as they behaved themselves. They continued, however, to commit acts of outrage and aggression; and in spite of repeated remonstrances and threats, scarcely a year passed without the occurrence of several raids, often headed by Bhutānese

officials, in which they plundered the inhabitants, massacred them, or carried them away as slaves.

In 1863 the Hon. Ashley Eden was sent as an envoy to Bhutān to demand reparation for these outrages. He was there subjected to the grossest insults, and under compulsion signed a treaty surrendering the Duārs to Bhutān and making many other concessions. On his return the Governor-General at once disavowed the treaty, stopped the allowance previously given for the Assam Duārs, and demanded the immediate restoration of all British subjects kidnapped during the previous five years. As this demand was not complied with, the Governor-General issued a proclamation, dated November 12, 1864, annexing the Western Duārs. No resistance was at first offered to the annexation; but in January, 1865, the Bhotiās made an unexpected attack on Dewāngiri, and the small British garrison abandoned the post with the loss of two mountain guns. This disaster was soon retrieved by General Tombs, and the Bhutān government was compelled to sue for peace, which was concluded on November 11, 1865. In the year following, it formally ceded all the eighteen Duārs of Eastern Bengal and Assam, and agreed to liberate all kidnapped British subjects. As the revenues of Bhutān mainly depended on these Duārs, the British Government, in return for these concessions, undertook to pay an allowance beginning at Rs. 25,000 a year and rising in three years to a maximum of twice that amount, provided that the Bhotiās abstained from fresh breaches of peace. Since then relations with Bhutān have been almost uninterruptedly satisfactory. On the occasion of the Tibet Mission of 1904, the Bhotiās gave strong proof of their friendly attitude. Not only did they consent to the survey of a road through their country to Chumbi, but their ruler, the Tongsa Penlop, accompanied the British troops to Lhāsa, and assisted in the negotiations with the Tibetan authorities. For these services he was made a K.C.I.E., and he has since entertained the British Agent hospitably at his capital.

Population.

Previous to the British annexation of the Duārs, the area of the State was reckoned at about 20,000 square miles. The population in 1864 was estimated to be about 20,000. Later information, however, points to a larger figure, and it is believed that the tract west of the Amo-chu alone contains about 15,000 persons. The chief towns are Punaka or Dosen, the winter capital, on the left bank of the Būgni river, 96 miles east-north-east from Darjeeling, Trashichödzong, the summer head-quarters, Paro, Wangdü Potrang, and Tongsa on the road from Assam to Lhāsa. The other towns are Wandipur, Ghāsa, and Murichom. The population west of the Amo-chu consists almost entirely of Nepālese, who have been driven out of their own country by the pressure of the population on the soil

and have flocked into Bhutān, as well as into Darjeeling District and Sikkim, for many years past. Now that the best lands in Darjeeling District and much of the good land in Sikkim are filled up, the movement towards Bhutān, where there is still plenty of waste, is stronger than ever. These immigrants are not well treated by the Bhotiās, but their condition is better than it used to be, now that the Bhutānese officials have begun to realize the extent to which they increase the revenue; and for a few years at any rate, until the colonist is settled and has made money, he is left in comparative peace by his rulers. East of the Amo-chu, the Bhutānese ryots have successfully objected to the Nepālese being allowed to take up land, on the ground that once admitted they would swamp the old inhabitants. The objection seems a reasonable one, since the Nepālese, if once admitted, would cultivate many of the Bhutānese grazing-grounds that are below 7,000 feet elevation, and would confine the cultivation of the latter within much narrower limits than at present.

The population of Bhutān consists of three classes: the priests, the chiefs or Penlops, including the governing class, and the cultivators. The Bhotiās are most at home among their cattle and mules, and are generally apathetic and backward in agriculture. Physically they are a fine race, hardy and vigorous, with dark skins, ruddy complexions, and high cheek-bones; but they are dirty in their habits and persons. They are courageous, but truculent and prone to sudden bursts of anger and murder. Robbery and other kinds of violence are common. Their food consists of meat, chiefly pork, mutton, and yak's flesh, turnips, rice, barley-meal, and tea made from the brick-tea of China. Their favourite drink is *chang* distilled from rice or barley and millet, and *maruā* beer made from fermented millet; all classes are very much addicted to the use of these liquors. Priests and laymen, men and women, all wear close-cropped hair, a feature which distinguishes the Bhotiās of Bhutān from their cousins in Tibet and Sikkim, among whom, except by priests, the pigtail is universally worn. A loose woollen coat reaching to the knees, and bound round the waist by a thick fold of cotton cloth or a leather belt, forms the costume of the men. A legging of broadcloth is attached to a shoe made generally of buffalo hide, and no Bhotiā ever travels during the winter without protecting his legs and feet against the effects of the snow. A cap made of fur or coarse woollen cloth completes the outfit. The women's dress is a long cloak with loose sleeves. The houses in appearance resemble Swiss chalets, and are picturesque and comfortable, but outside the towns they are seldom more than two storeys high. The Bhotiās are neat joiners, and their doors, windows, and panelling are excellent. No ironwork is used; the doors open on ingenious wooden hinges, and all the floors are neatly boarded with deal. On two sides of the house

is a veranda, painted and ornamented with carved work. The only defect is the absence of chimneys, which the Bhotiās do not know how to construct.

The Bhutānese spoken language is a dialect of Tibetan, but it is subject to great local variations, owing to the mountain barriers which impede free communication between different parts. In the west the dialect is closely akin to that of Sikkim and Kālimpong, but the pronunciation is sharper and more abrupt. The Tibetans and Sikkimese say that the Bhutānese speech resembles that of a man talking in anger, and there is no doubt that the temper of the people is reflected in their mode of talk. The written language of books is the same as that of Tibet; and by means of it the native of Bhutān can communicate with the Kam-pa Tibetan living on the confines of China, and with the Ladākhi on the borders of Kashmīr.

The people profess to be Buddhists; but their religion, as is the case in Tibet also, partakes largely of the old Bom-po or the religion which preceded Buddhism. This consists chiefly of devil-worship, and of propitiatory sacrifices in which animal life is freely taken, a proceeding abhorrent to the true followers of Buddha. The sacred books of the Buddhist, or rather of the Lāmaist religion, are brought from Tibet; they are frequently recited but seldom understood. The local priests excel in the painting of religious pictures, and many of the best pictures in the Sikkim monasteries are the work of Lāmas from Bhutān.

Agriculture.

From the configuration of the country, regular husbandry is limited to a comparatively few spots. The chief crop is maize, which grows up to 7,000 feet; wheat, *maruā*, buckwheat, and mustard are also grown. Cultivation is in a backward state, even in those places where it has existed longest. The most paying crops in the country are cardamoms and terraced rice, but both these require irrigable land and so involve a large outlay on the part of the cultivator. Large areas of suitable land are to be found in which the means of irrigation are abundant, but property is very insecure and the cultivator hesitates to incur the necessary expenditure.

The forests have a certain value as grazing-grounds, and many of the graziers who supply Darjeeling town with milk send their cows when off milk to the forests at the head of the Di-chu. A species of pony, called *tangan* from Tangasthān, the general appellation of that assemblage of mountains which constitutes the territory of Bhutān, is found in this tract, the same name being applied to similar ponies in parts of Nepāl. The *tangan* pony usually stands about 13 hands high, and is short-bodied, clean limbed, deep in the chest, and extremely active.

Bhutān is a fairly good country for an ordinary cultivator, so long

as he does not grow rich. There is, however, no security of property; and if cultivators amass wealth, they are afraid to show any signs of it, for fear lest they should be mulcted on trivial pretexts, such as the wearing of clothes beyond their station, or the possession of ponies which they have not sent to carry the Kāzī's loads. Among the reasons which induce the Nepālese to migrate into Western Bhutān in the face of these disadvantages, may be mentioned the plentiful supply of land, and the absence of all restrictions on taking it up and clearing it, on burning down or cutting trees, and on brewing and selling all kinds of liquor. The promiscuous burning of jungle and felling of timber will, however, before long leave them much worse off than if they had been subjected to the restrictions which the British administration imposes in these respects.

Trade and communications.

In so rude a country, the manufactures of the people are very primitive, and the few articles produced are all destined for home consumption. Coarse blankets and cotton cloth are made by the villagers inhabiting the southern tract. Leather, from the hide of a buffalo, imperfectly tanned, furnishes the soles of snow-boots. Bowls are neatly turned from various woods. A small quantity of paper is made from a plant described as the *Daphne papyrifera*. Swords and daggers, and sheaths made of copper, brass or silver, iron spears, arrow-heads, charm boxes and *pān* boxes, cauldrons, and agricultural implements complete the list of manufactures.

In 1775 Mr. Bogle obtained the consent of the Deb Rājā to free trade between Bhutān and the territories of the East India Company; and by Article IX of the Sinchulā Treaty of 1865 it was agreed that there should be free trade and commerce between the two Governments. Except, however, for a few years during the administration of Warren Hastings, Bhutān has practically remained closed to British traders. The Bhotiās, on the other hand, have been permitted to come freely into British territory; and fairs to promote trade have been established and subsidized at KĀLIMPONG in Darjeeling, and FĀLĀKĀTA and ALĪPUR in Eastern Bengal, and at Dewāngiri and Udalguri in Assam. In 1902–3 the value of the exports from Bhutān into Bengal was 4·17 lakhs, and of the imports 1·16 lakhs. The chief exports are timber and oranges, and the chief imports are European piece-goods, manufactured silk, betel-nuts, and tobacco. Other exports are ponies and mules, cattle, sheep, musk, *ghī*, silk, tea, wax, manufactured piece-goods, yaks' tails, madder, hides, ivory, lac, and rubber.

Practically the only means of communication are a few rough tracks on which ponies can be ridden. Under a recent arrangement with the Bhutān government, the country between the valleys of the Amo-chu (Torsā) and the Di-chu (Jaldhākā) has been prospected for a road

or mule track, the construction of which is now under consideration. A survey has been completed from Nāgrākāta on the Bengal-Duārs Railway to Chumbi; and the road, if sanctioned, will connect Tibet with the plains of Bengal, leaving Chumbi above the gorge in Bhutān through which the Amo-chu flows, crossing the intervening range at an elevation of under 10,000 feet, and reaching the plains at the point where the Di-chu enters Jalpaigurī District.

At the head of the Bhutān government there are nominally two supreme authorities: the Dharma Rājā, known as Shaptrung Renīpoche, the spiritual head; and the Deb or Depa Rājā, the temporal ruler. The Dharma Rājā is regarded as a very high incarnation of Buddha, far higher than the ordinary incarnations in Tibet, of which there are several hundreds. On the death of a Dharma Rājā a year or two is allowed to elapse, and his reincarnation then takes place, always in the Chöje, or royal family of Bhutān. It is believed that on the day of his rebirth a slight shower of rain falls from a clear sky, and a rainbow appears above the house in which he is born. The parents report his birth to the local chief. When he is about three years old and able to speak a little, he is expected to give particulars as to the property of his monastery, the Talo *göm-pa* near Punaka, and to identify the rosary, books, and other articles used by him in religious ceremonies in his former life from among similar articles used by other monks.

Administration.

The chief council, called the *shung lhengye*, is composed of the Dharma Rājā and the Deb Rājā, the Penlops of Tongsa, Paro, and Tagapa, and the Jongpens of Timpu and Punaka; it assembles only for questions of national importance, such as the levying of war or other grave matters. A subordinate council for the disposal of less important matters is, when sitting at Punaka, constituted from the Deb's *zimpön*, who is a sort of private secretary to the Deb Rājā, the *shung dronyer*, and either the Punaka or the Timpu Jongpen; in the case of meetings held at Trashichödzong, the summer capital, an official known as the *kalapa* takes the place of the Punaka Jongpen.

The Deb Rājā is in theory elected by the council, but in practice he is merely the nominee of whichever of the two governors of West or East Bhutān (the Penlops of Paro and Tongsa) happens for the time to be the more powerful. At present the Tongsa Penlop controls all public affairs in the name of the Deb Rājā. The chief officials at Tongsa subordinate to him are the *dronyer*, who remains in charge of the *jong* in his absence, his *zimpön* or private secretary, and the *depön* or *dapön*, who commands the soldiers and police (*zimkap*). The subordinate officers in Western Bhutān consist, in addition to a number of officials at Paro, of Kāzīs who are Bhotiās and of *thikadārs* who are Nepālese; these live in the interior and are responsible for the

collection of revenue. The Kāzīs have power to dispose of cases and to impose fines, and only serious cases are sent to Paro for trial. Though there is thus an outward show of government, the local officials are but imperfectly controlled by the central power; and murder, robbery, and other crimes of violence are common. The State is in direct relations with the Government of India, through the medium of the Political officer in Sikkim.

The Bhotiās in Western Bhutān pay a cultivation tax in grain and also a tax in butter on their cattle farms. The Nepālese and Lepchā ryots pay a poll tax of Rs. 6–8 per annum for each house, in addition to a labour tax of Rs. 3 per annum for each house, if loads are not carried free of charge according to the Kāzī's requisitions, and a grazing charge of about R. 1 per annum for each 15 to 20 head of cattle grazed in the forests near the villages. This last tax is paid by the Nepālese headmen to the Bhutānese inhabitants as a fee for grazing in the jungles originally occupied by the latter alone. In addition, there are various irregular charges, chiefly fines levied by the officials on the most trivial pretexts, which often swell the expenses, especially of rich ryots, to a very high figure.

Local levies under the control of the different chiefs can nominally be called out by the Deb Rājā; but it is estimated that the total number of fighting men does not exceed 9,500, and that the number that can be concentrated at one place does not exceed 4,000 or 5,000 men. As a militia these levies are of a worthless description; they are seldom mustered for drill and are lacking in discipline, while the officers have no knowledge of strategy or tactics. Their arms consist of matchlocks, bows and arrows, slings, and *daos*, with a few breech-loading rifles.

The population is generally illiterate. Facilities have been given by the Government of Bengal for a few young Lāmas to attend the Bhotiā boarding-school at Darjeeling, but no advantage has been taken of these by Bhotiās from Bhutān.

[S. Turner, *Account of an Embassy to the Court of the Tashi Lāma in Tibet* (1880); R. B. Pemberton, *Report on Bhutān* (Calcutta, 1839); Ashley Eden, *Report on the State of Bhutān* (Calcutta, 1864), and *Political Missions to Bhutān* (Calcutta, 1865); C. R. Markham, *Mission of Bogle to Tibet and Journey of Manning to Lhāsa* (1879).]

Bhuvaneswar.—Temple city in Purī District, Bengal. *See* BHUBANESWAR.

Biāna.—*Tahsīl* and town in Bharatpur State, Rājputāna. *See* BAYĀNA.

Biāns.—A *patti* or division of *pargana* Dārmā, in the Champāwat *tahsīl* of Almorā District, United Provinces, situated in the extreme north-east corner of the District. The trade route from TANAKPUR to

Tibet along the Kālī river crosses the frontier in this tract by three passes: the Lampiya Dhurā (18,000 feet), the Mangsha Dhurā, and the Lipū Lekh (16,750). The last-mentioned is the easiest route, and leads directly to the Tibetan mart of Tāklakot, and to the Mānasarowar Lake and Mount Kailās, the sacred places visited by Hindus.

Biaora.—Town in the Rājgarh State, Central India, situated in 23° 55′ N. and 76° 57′ E., on the Agra-Bombay high road. Population (1901), 5,607. It is an old town, and has long been a trade centre; but since the opening of railways and the consequent decrease in importance of the Agra-Bombay road as a trade route, its prosperity has declined. A large fair is held here every Monday for the sale of grain, while most of the opium passes through the hands of the Biaora merchants. The town contains a residence for the chief, a dispensary, a *sarai*, British combined post and telegraph offices, and a *dāk*-bungalow.

Biās.—One of the five rivers of the Punjab. *See* BEĀS.

Bibiyānā.—River in Sylhet District, Assam. *See* SURMĀ.

Bichrand.—Name of two *thakurāts* in the MĀLWĀ AGENCY, Central India.

Bickaneer.—State and capital thereof in Rājputāna. *See* BĪKANER.

Bīdar Division.—Formerly a Division, occupying almost the centre of the Hyderābād State, and extending from the Yeotmāl District of Berār in the north as far as the Kistna river in the south. It lay between 16° 5′ and 19° 55′ N. and 77° 9′ and 80° E. The headquarters of the Commissioner (*Sūbahdār*) were at Patancherū, a village in the Kalabgūr *tāluk* of Medak. The population of the Division increased from 2,455,179 in 1881 to 2,812,720 in 1891, but declined to 2,745,979 in 1901. The total area was 22,567 square miles, and the density of population 122 persons per square mile, compared with 135 for the whole State, of which the Division was the largest both in area and population. Of the total population in 1901, 88·2 per cent. were Hindus and 9·6 per cent. Musalmāns, while Christians numbered 816 (of whom 719 were natives), Jains 1,320, Pārsīs 4, Sikhs 493, and Animists 54,357. The Division included five Districts, as shown below:—

District.	Area in square miles.	Population, 1901.	Land revenue and cesses, 1901, in thousands of rupees.
Bīdar	4,168	766,129	11,64
Indūr	4,822	634,588	19,60
Mahbūbnagar	6,543	705,725	10,15
Medak	2,005	366,722	12,88
Sirpur Tāndūr	5,029	272,815	2,66
Total	22,567	2,745,979	56,93

In 1905 Bīdar District was transferred to the Gulbarga Division, and

Sirpur Tāndūr (now known as Adilābād) to Warangal, while the Division was increased by the addition of Nalgonda from Warangal, and is now called MEDAK GULSHANĀBĀD. Other changes were made in the areas of the remaining Districts, and the name of Indūr District has been changed to Nizāmābād.

Bīdar District.—District in the Gulbarga Division of the Hyderābād State, bounded by Nānder District and the *paigāh* estates of Nawāb Sir Vikār-ul-Umarā, on the north; by the *paigāh* estates of Nawāb Sir Khurshed Jāh, on the east and south; and by the Districts of Bhīr and Osmānābād and the *paigāh* and Kalyāni *jāgīrs*, on the west. It lies between 17° 30′ and 18° 51′ N. and 76° 30′ and 77° 51′ E., with a total area of 4,168 square miles, of which 2,120 square miles are *jāgīr*[1].

Physical aspects

From Khānāpur, 8 miles west of Bīdar, a range of low laterite hills, forming a plateau which terminates towards the north above the valley of the Mānjra, extends due east as far as Sadāseopet in Medak District; otherwise the country is almost flat, with a gentle slope towards the east.

Besides the Mānjra, the largest river in the District, which enters it from Osmānābād, and runs almost due east, there are ten minor streams: the Ghirni and the Bahnār, both tributaries of the Mānjra; the Tiru, Urgi, Reondi, Manmuri, Lendi, Tirna, Madhura, and Kāranja. The Mānjra is the only perennial river, all the others running dry during the summer months. None of these rivers is utilized for irrigation purposes.

The District is occupied almost entirely by the Deccan trap, the underlying gneiss appearing along its eastern border.

Bīdar is noted for its healthy climate. The waters of the lateritic region are chalybeate, and possess tonic properties. The southern half of the District being a high plateau about 2,350 feet above the sea, and well drained, the climate is very dry and healthy. The temperature is much lower here and in the west than towards the east. The western and northern *tāluks* are generally more favoured as regards rain than the southern and eastern. The annual rainfall averages about 37 inches. In 1899 and 1900 it was scanty, the latter being a famine year.

History.

The history of the District commences with the capture of the capital by Muhammad bin Tughlak in 1321. In 1347 Bahman Shāh Gangū, the first Bahmani king of Gulbarga, took Bīdar. In 1430 Ahmad Shāh Wali Bahmani founded the modern town, built the fort, and removed his capital here from Gulbarga. On the dissolution of the Bahmani kingdom, the District fell to the Barīd Shāhis of Bīdar, who reigned from 1492 to 1609; afterwards it was included in the Adil Shāhi kingdom of Bijāpur. The city was plundered

[1] These dimensions relate to the District before the alterations made in 1905; see below, under Population.

by Malik Ambar, the Nizām Shāhi minister of Ahmadnagar in 1624, but was recovered by the king of Bijāpur, and remained part of his realm till about 1656, when Aurangzeb took it. The District was included in the Hyderābād State on its foundation early in the eighteenth century.

The District contains numerous relics of its palmy days, prominent among them being the fort of Bīdar, which is surrounded by a wall and ditch. Though the fortifications and battlemented walls are very strong and are still well preserved, the old palaces are more or less decayed. It contains many ruined palaces and mosques, among the latter being two large mosques known as the Jāma Masjid, a handsome building, and the 'sixteen-pillared' mosque. On the bastions are a number of guns, formed of bars of metal welded together and bound by hoops. Outside the town and to the west of it are the tombs of the Barīd Shāhi dynasty. The tombs of twelve Bahmani kings lie to the north-east of the town. Numerous ruins of temples, caves, and mosques are to be found near KALYĀNI, the capital of the Chālukyas, and at the villages of Nilanga, Karūsa, Kaulās, Nārāyanpur, Sākol, Sirūri, Sītāpur, and Tiprath.

Population.

The number of towns and villages in the District, including large *ilākās* and *jāgīrs*, is 1,464. The population at the last three enumerations was: (1881) 788,827, (1891) 901,984, and (1901) 766,129. The decrease during the last decade was due chiefly to famine, but partly to the transfer of the Jūkal *tāluk*, with a population of 15,789, to the Atrāf-i-balda District. The head-quarters are at BĪDAR, the other towns being KALYĀNI, HOMNĀBAD, KOHĪR, UDGĪR, BHĀLKI, and ALIKHER. More than 86 per cent. of the population are Hindus, 14 per cent. being Musalmāns, with only 15 Christians. The District lies at the junction of three linguistic divisions, and about 34 per cent. of the people speak Marāthī, 35 per cent. Kanarese, more than 16 per cent. Telugu, and about 15 per cent. Urdū. The following table gives the chief statistics of population in 1901:—

Taluk.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Bīdar	114	1	46	29,005	254	− 0·5	Not available.
Kārāmūngi	150	...	57	31,412	209	− 7 3	
Aurād	158	.	54	16,330	103	− 24·0	
Kohīr	147	1	42	32,041	217	− 0·3	
Nilanga	248	..	63	39,830	160	− 17·5	
Udgīr	544	1	153	78,642	144	− 16 7	
Varvāl Rājūra	687	...	211	74,637	109	− 4'·2	
Jāgīrs, &c.	2,120	4	831	464,232	219	− 15·3	
Total	4,168	7	1,457	766,129	181	− 15·1	14,564

In 1905 Kohīr was merged in Bīdar, and Aurād in Kārāmūngi minor changes have been made in the Udgīr, Nilanga, and Rājūra *tāluks*. The District in its present form comprises five *tā* BĪDAR, KĀRĀMŪNGI, NILANGA, UDGĪR, and VARVĀL RĀJŪRA. formerly part of the Bīdar Division.

The most numerous caste is that of the agriculturist Kāpus or K 113,800, besides other agricultural castes, numbering 71,000, inc 28,000 Munnūrs. The Baniās, or the trading and money-lending number 13,000. Next come the Dhangars or shepherds, 52,000. Mahārs and Māngs number, respectively, 68,000 and 60,00 former work as agricultural labourers and the latter in leather. Velmas number 32,000. The population supported by agricul 417,000, or 54 per cent. of the total. There were only four Christians in 1901.

Agriculture.

The soils of the District consist of *regar* or black cotton so *masab* or red soil. The *regar* is generally met with in basins, v and hollows, while the *masab* or red soil is in high country. The *regar* is derived from sch and gneissose rock (trap), and the red soil from laterite, both very fertile.

The tenure of lands is entirely *ryotwāri*. *Khālsa* and crown covered 2,048 square miles in 1901, of which 1,788 were culti while 51 were occupied by fallows and cultivable waste, 20 by f and 189 were not available for cultivation. The staple foo consists of the various kinds of *jowār*, grown on 44 per cent. of th area cropped. Next come wheat, rice, and *bājra*, the areas which were 91, 50, and 2 square miles respectively. Rice is gro all the *tāluks* except Kohīr. The area under pulses of different was 159 square miles, while cotton and oilseeds occupied 23 170 square miles.

There is no special breed of cattle, but those reared locall sufficient for the needs of the cultivators. Marāthā ponies are sol from Rs. 40 to Rs. 200, and the State has kept two Arab stallio Bīdar for the purpose of improving the breed. Sheep and go the ordinary kind are reared.

The area irrigated is only about 34 square miles, distribute follows: canals and channels supply 4 square miles, wells 28, and sources 2. Though there are eight tanks and ponds, they are with one exception, for drinking purposes only. The chief supp water is derived from wells, of which there are 2,980.

The District contains no 'reserved' or protected forests, but ha square miles of unprotected forests.

The minerals found are soapstone, red ochre, and a gypsum mineral, the last being used for plastering flat roofs to make

water-proof. Blocks of red and yellow laterite and black basalt are generally used for building purposes. The latter is largely utilized for tombstones and takes a very good polish.

Trade and communications.

The District is celebrated for its *bidri* ware, to which it has given its name. This consists of an alloy of copper, lead, tin, and zinc, inlaid with silver and occasionally gold. *Hukkas*, *pāndāns* (betel-boxes), tumblers and goblets, washing basins and ewers, and other vessels are made of this ware. Unfortunately the industry is dying out, owing to want of support. Some fine specimens of this work were made for presentation to His Royal Highness the Prince of Wales (His present Majesty) in 1875, and others have been sent to various exhibitions from time to time. Some embroidery and needlework is also prepared. Ordinary coarse cotton cloth and *sārīs*, &c., formerly manufactured to a considerable extent, are being gradually displaced by the importation of cheaper mill-made cloths. Black blankets made by the Dhangars (shepherds) fetch from Rs. 1-8-0 to Rs. 6 apiece. Formerly several sugar refineries existed in the District, but the importation of cheap refined sugar has ruined the local manufacture.

The principal exports are *jowār* and other food-grains, cotton, oil, chillies, oilseeds, sheep, jaggery, tobacco, and horns. The chief imports consist of hardware, salt, salted fish, opium, silver, gold, copper, brass and copper vessels, refined sugar, iron, mineral oil, sulphur, raw silk, and all kinds of woollen, silk, and cotton fabrics. The centre of trade is the town of BĪDAR. HOMNĀBĀD, which was once the chief market, has lost its importance since the opening of the Nizām's State Railway. The principal trading castes are the Vānīs, Komatis, and Baljawārs, who are also money-lenders. Weekly markets are held in different parts of the District. A great horse and cattle fair used to be held annually at MĀLEGAON, in November and December, which lasted for a whole month. Upwards of 4,000 horses and ponies were sold at the last fair in 1897, but it has not been held since the outbreak of plague.

There is no line of railway in Bīdar. The metalled road from Osmānābād to Hyderābād passes through the District and is lined on both sides with avenues of acacia.

Famine.

The famine of 1876-8 affected Bīdar only slightly, but the District suffered severely from that of 1899-1900. The rainfall in 1899 was only 15 inches, while prior to that year there had also been droughts. Six relief works were opened in the *tāluks* of Varvāl Rājūra, Udgīr, and Nilanga, which suffered the most, the highest daily attendance being 29,262. The out-turn of the *kharīf* and *rabi* crops was about 28 per cent., while the early rice crop yielded 37 per cent., and the late or *tābi* crop was a total failure. The

population at the Census of 1901 showed a decrease of 15 per cent., largely due to famine, while the loss of cattle was estimated at more than one-half. The total cost of the famine amounted to nearly 3 lakhs.

Administration. There are two subdivisions in the District. One, consisting of the *tāluks* of Udgīr, Varvāl Rājūra, and Nilanga, is placed in charge of the Second Tālukdār; and the other, comprising the *tāluks* of Bīdar and Kārāmūngi, is under the Third Tālukdār, the First Tālukdār exercising a general supervision over their work. Each *tāluk* is under a *tahsīldār*.

The District civil court is under a Civil Judge styled the *Nāzim-i-Dīwāni*. There are seven subordinate civil courts, each under a *tahsīldār*. The First Tālukdār is the chief magistrate of the District, and the Civil Judge is also a joint magistrate, who exercises powers during the absence of the First Tālukdār from head-quarters. The Second and Third Tālukdārs and the *tahsīldārs* exercise second- and third-class magisterial powers. There is not much serious crime in ordinary years; dacoities vary according to the state of the season.

No information is available regarding the revenue history of the District. According to the old system, villages were farmed out to contractors who received 1½ annas per rupee for collection. In 1866 this system was abolished throughout the Nizām's Dominions, and administration by District officials was introduced. In 1885 the District was surveyed and settled for fifteen years. The average assessment on 'dry' land is Rs. 2 (maximum Rs. 3, minimum Rs. 1-4), and on 'wet' land Rs. 8 (maximum Rs. 15, minimum Rs. 2-8).

The land revenue and the total revenue of the District are given below, in thousands of rupees:—

	1881.	1891.	1901.	1903.
Land revenue . .	10,04	10,96	10,94	10,21
Total revenue . .	13,24	15,54	15,30	13,89

A local cess of one anna per rupee is levied on the land revenue, three pies of which are set apart for local purposes. There is a District board at Bīdar, and six *tāluk* boards have also been formed. The District board supervises the working of the *tāluk* boards as well as that of the municipality of Bīdar. The total expenditure of these boards in 1901 was Rs. 12,200. There is a small conservancy establishment at each of the *tāluk* head-quarters.

The First Tālukdār is the head of the District police, with a Superintendent (*Mohtamim*) as his executive deputy. There are 27 police stations in the District, and the force consists of 446 constables, 75 subordinate officers, and 52 mounted police under 7 inspectors. There is also a small special police force called *Rakhwāli*. The District jail

at Bīdar has accommodation for 100 prisoners, but those with sentences of upwards of six months were until recently transferred to the Central jail at NIZĀMĀBĀD.

The District takes a low position as regards literacy, only 1·9 per cent. (3·7 males and 0·6 females) of the population being able to read and write in 1901. The total number of pupils under instruction in 1881, 1891, 1901, and 1903 was 655, 2,849, 2,742, and 2,559 respectively. In 1903 there were 30 primary and 2 middle schools and one high school, with 304 girls under instruction. The total expenditure on education in that year amounted to Rs. 25,800, of which Rs. 4,365 was contributed by the local boards, Rs. 12,875 by the State, and Rs. 1,560 from school fees.

There are four dispensaries, including one *Yūnāni*, in the District, with accommodation for 12 in-patients. In 1901 the number of cases treated in all these dispensaries was 34,900, of whom 194 were in-patients. The number of operations performed was 503, and the total expenditure was Rs. 11,248.

In 1901 only 1,773 persons were successfully vaccinated, representing 2·3 per 1,000 of the population.

Bīdar Tāluk.—*Tāluk* in Bīdar District, Hyderābād State. The population in 1901, including *jāgīrs*, was 105,392, and the area was 487 square miles. In 1891 the population was 105,781. These figures include the totals for the Kohīr *tāluk*, which was merged in Bīdar in 1905, and had an area of 236 square miles in 1901 and a population of 52,558. The *tāluk* contains two towns, BĪDAR (population, 11,367), the head-quarters of the District and *tāluk*, and KOHĪR (6,379), besides 177 villages, of which 89 are *jāgīr*. The land revenue in 1901 was 1·6 lakhs. The *tāluk* is situated on a plateau, composed mainly of lateritic soil, and is crossed by the Mānjra river. The *paigāh tāluks* of Chincholi (population, 42,971; villages, 47), Ekeli (population, 24,324; villages, 53), and Chitgopa (population, 80,929; villages, 93), and the *jāgīr* of Kalyāni (population, 36,205; villages, 72) adjoin this *tāluk*. KALYĀNI (population, 11,191), HOMNĀBĀD (7,136), and ALIKHER (5,740) are the chief towns in the Kalyāni *jāgīr* and Chincholi *tāluk*.

Bīdar Town.—Head-quarters of Bīdar District, Hyderābād State, situated in 17° 55′ N. and 77° 32′ E., on an elevated and healthy plateau 2,330 feet above the sea. Its population has increased during the last twenty years: (1881) 9,730, (1891) 11,315, and (1901) 11,367. According to local tradition, the Kākatīya Rājās of Warangal endowed a temple of Mahādeo which existed here, and a town sprang up in its vicinity in the middle of the thirteenth century, which became the capital of a large province. Ulugh Khān, afterwards Muhammad bin Tughlak, besieged and took it in 1321; but subsequently, when the governors of the Deccan rebelled, Alā-ud-dīn Hasan, the founder of the Bahmani

dynasty, annexed the town to his new kingdom in 1347. Ahmad Shāh Wali, the tenth Bahmani king, founded the modern city and built the fort, removing his court here from GULBARGA in 1430. Bīdar continued to be the capital of the Bahmani kings until the extinction of that dynasty, when Amīr Barīd founded an independent State in 1492. Amīr Barīd ruled over Bīdar and the surrounding country, and was succeeded by his son Alī Barīd, in 1538, who was the first to assume the title of Shāh and died in 1582. Three other kings, Ibrāhīm, Kāsim Barīd, and Mirza Alī Barīd, followed, the last of whom assumed the title of Amīr Barīd II. This short-lived dynasty became extinct when Amīr Barīd II was made a prisoner and sent to Bijāpur by Ibrāhīm Adil Shāh. In 1624 the Nizām Shāhi troops under Malik Ambar attacked and plundered Bīdar, but it was retaken by the Bijāpur king. In 1656 Aurangzeb besieged and took Bīdar, changing its name to Zafarābād. The town remained in the possession of the Mughals till the first of the Nizāms declared his independence, early in the eighteenth century.

The town of Bīdar must have been of great extent in its prosperous days, as appears from its palaces, mosques, and other buildings. Among these may be mentioned the great *madrasa* or college built by Mahmūd Gāvān, the Bahmani minister, which is now in ruins, the Jāma Masjid, and the Sola Khamba or 'sixteen-pillared' mosque. The last of these is in the citadel, which also contains the ruined Rang Mahal or 'coloured palace,' the remains of a mint, a Turkish bath, an arsenal, and several powder magazines. The fortifications and battlemented walls of this place are very strong, and are still well preserved. On its numerous bastions pieces of ordnance are mounted, some of very large size; one of them is specially remarkable as having been brought here from Bijāpur. West of the town are the tombs of Alī Barīd, Kāsim Barīd, and others of the same dynasty, while twelve tombs of the Bahmani kings are situated to the north-east in the village of Ashtūr. Most of the old buildings in the fort are now used as offices. Bīdar is the chief trade centre of the District, and has given its name to a class of metal-work made of an alloy of copper, lead, tin, and zinc, inlaid with silver or gold. This industry is, however, not very flourishing.

Bidhūna.—North-eastern *tahsīl* of Etāwah District, United Provinces, conterminous with the *pargana* of the same name, lying between 26° 38′ and 26° 57′ N. and 79° 20′ and 79° 45′ E., with an area of 433 square miles. Population increased from 187,530 in 1891 to 206,182 in 1901. There are 413 villages, but no town. The demand for land revenue in 1903–4 was Rs. 3,68,000, and for cesses Rs. 60,000. The density of population, 476 persons per square mile, is almost exactly equal to the District average. The *tahsīl* lies north of the river Sengar, and consists of a fertile area of rich soil, interrupted only by marshes and patches of

barren land. On the north it is crossed by the Pāndū; and two small streams, the Puraha and Ahneya, unite and then join the Arind, which also flows across it. This is the most fertile *tahsil* in the District. In 1903-4 the area under cultivation was 204 square miles, of which 116 were irrigated. A distributary of the Cawnpore branch of the Lower Ganges Canal supplies the north of the *tahsīl*, and the Etāwah branch of the same canal the southern portion. Canals serve nearly half the irrigated area, and wells most of the remainder.

Bihār.—Historic name of one of the four sub-provinces which make up the Lieutenant-Governorship of Bengal, the remaining three being Bengal proper, Orissa, and Chotā Nāgpur. It lies between 23° 48′ and 27° 31′ N. and 83° 20′ and 88° 32′ E., and includes the Divisions of PATNA and BHĀGALPUR. The area is 44,259 square miles and the population (1901) 24,241,305. Bihār occupies the north-west corner of Bengal, and is bounded on the north by Nepāl, on the west by the United Provinces of Agra and Oudh, on the south by the Chotā Nāgpur plateau and the Burdwān Division, and on the east by the Rājshāhi Division. It is divided into North and South Bihār by the broad stream of the Ganges, and consists for the most part of an alluvial plain, though in the south detached outliers of the Chotā Nāgpur plateau encroach upon the level, extending at Monghyr as far north as the Ganges itself. The south-Ganges Districts of Patna, Gayā, and Shāhābād comprised the ancient kingdom of MAGADHA, the capital of which was first at Rājgīr, 30 miles north-east of Gayā, and subsequently at Pātaliputra (Patna), and which is best known in connexion with the great Maurya kings Chandragupta and Asoka. North of the Ganges was MITHILĀ, which was a great seat of Sanskrit learning as early as 1000 B.C., and included the modern Districts of Darbhangā, Champāran, and North Muzaffarpur; the south of the latter District comprised the small kingdom of VAISALĪ. Sāran District formed at this time part of the great kingdom of the Kosalas of Oudh, while the eastern Districts of Monghyr, Bhāgalpur, and Purnea as far as the Mahānandā river belonged to the kingdom of Anga. It was in Magadha that Buddha developed his religion, and the sub-province derives its name from the town of Bihār, which means a Buddhist monastery (*vihāra*). It was here also that Mahāvīra founded the cognate creed of the Jains. The early history of Bihār is detailed in the article on BENGAL. The sub-province did not become a separate unit of administration until early in the thirteenth century, when it came into the hands of the Muhammadans, and was by them formed into a *Sūbah*. In Todar Mal's settlement of 1582 it was divided into eight *sarkārs*, corresponding with the modern Patna Division and the Districts of Monghyr and Bhāgalpur; the remainder of the Bhāgalpur Division was included in the *Sūbah* of Bengal.

Bihār differs from Bengal proper in almost every respect. The

extremes of temperature are far greater, so that it is colder in the winter and hotter in the summer, and the climate is drier than in Bengal. The soil is for the most part old alluvium and is not fertilized by annual deposits of silt from the great rivers, as in Bengal; it is lighter and more friable, and grows a greater variety of crops. The rainfall is lighter, starts later, and is more capricious, and the crops are more liable to suffer from drought. The population is denser than in Bengal generally, and the people are hardier and healthier, though not so prosperous. No less than 82 per cent. of the people are Hindus, as compared with 46 per cent. in Bengal; and, especially in the west of the sub-province, the inhabitants are far more largely of Aryan stock than in Bengal proper. The language spoken is Hindī. The most important places are the ancient cities of PATNA, GAYĀ, BIHĀR, and MONGHYR; the towns of MUZAFFARPUR, CHAPRĀ, DARBHANGĀ, and BHĀGALPUR; and SONPUR, the scene of a great annual bathing festival.

Bihār Subdivision.—Southern subdivision of Patna District, Bengal, lying between 24° 57′ and 25° 26′ N. and 85° 9′ and 85° 44′ E., with an area of 791 square miles. Owing to plague its population in 1901 was only 602,907, compared with 608,672 in 1891, the density being 762 persons per square mile. The greater part of the subdivision is a low-lying alluvial plain, which is broken to the south by the Rājgīr hills. It contains one town, BIHĀR (population, 45,063), its head-quarters; and 2,111 villages. Bihār town is supposed to have been the capital of the ancient kingdom of Magadha. The neighbourhood contains interesting Buddhist remains, chiefly at BARAGAON, where numerous mounds bury the ruins of Nālanda (a famous seat of learning in the days of the Pāl kings), GIRIAK, and RĀJGĪR. PĀWA-PŪRI contains three Jain temples. HILSĀ, near Patna station on the East Indian Railway, is an important market.

Bihār Town.—Head-quarters of the subdivision of the same name in Patna District, Bengal, situated in 25° 11′ N. and 85° 31′ E., on the Panchāna river. It is supposed to have been the capital of the ancient kingdom of Magadha, but its early history is involved in obscurity. The remains of an old fort covering 312 acres of ground contain a profusion of ruined Buddhist and Brāhmanical buildings, which prove the site to be a very old one. Among these may be mentioned the remains of the great *vihārā* or college of Buddhist learning, from which the town has derived its name. Many ancient Muhammadan mosques and tombs are also found in the city, the most important of which is the tomb of Shāh Sharīf-ud-dīn Makhdūm. The population, which was 44,295 in 1872, increased to 48,968 in 1881, but fell again to 47,723 in 1891, and to 45,063 in 1901; of the last number 29,892 were Hindus and 15,119 Musalmāns. Bihār is connected by a light railway with Bakhtiyārpur on the East Indian Railway. It was constituted a muni-

cipality in 1869. The income during the decade ending 1901–2 averaged Rs. 23,000 and the expenditure Rs. 22,000. In 1903–4 the income was Rs. 32,000, including Rs. 19,000 derived from a tax on persons (or property tax) and Rs. 6,000 from a conservancy rate; and the expenditure was Rs. 31,000. Bihār contains the usual public buildings; the sub-jail has accommodation for 25 prisoners.

[*Epigraphia Indica*; *Archaeological Survey of India*, vol. ii, pp. 291–4; *Journal of the Asiatic Society of Bengal*, vol. xxxvii, p. 7, and vol. xii, p. 300.]

Bīhat.—Petty *sanad* State in Central India, under the Bundelkhand Agency, with an area of about 16 square miles. It lies between the Jhānsi and Hamīrpur Districts of the United Provinces. Population (1901), 3,984. The *jāgīrdār* is a Bundelā Rājput, whose ancestors originally received a grant of seven villages from Hirde Sāh, son of Mahārājā Chhatarsāl of Pannā, the grant being continued during the government of Alī Bahādur of Bāndā. When the British supremacy was established, Dīwān Aparbal Singh was found in possession of seven villages, and Dīwān Chhatrī Singh in possession of Lohārgaon (which together now make up the eight villages of the holding), and *sanads* continuing these grants were conferred on them in 1862. The present *jāgīrdār*, Rao Mahum Singh, succeeded in 1872. Of the total area, 7 square miles are cultivated; and the revenue is Rs. 13,000. The chief town, Bīhat, is situated in 25° 25′ N. and 79° 21′ E., on the east bank of the Dhasān, 10 miles by country track from Harālpur on the Jhānsi-Mānikpur section of the Great Indian Peninsula Railway.

Bihiyā.—Village in the head-quarters subdivision of Shāhābād District, Bengal, situated in 25° 33′ N. and 84° 28′ E., on the East Indian Railway, 382 miles from Calcutta. Population (1901), 764. Bihiyā is best known for the manufacture of iron sugar-cane mills, which are now in general use throughout Northern India.

Bihora.—Petty State in REWĀ KĀNTHA, Bombay.

Bijā (*Beja*).—One of the Simla Hill States, Punjab, lying between 30° 53′ and 30° 55′ N. and 76° 59′ and 77° 1′ E., with an area of 4 square miles. Population (1901), 1,131. The present chief, Thākur Pūran Chand, is a minor, and the administration is conducted by a council. The State has a revenue of Rs. 500, out of which Rs. 124 is paid as tribute.

Bijāpur Agency.—An Agency in the Southern Marāthā Country, Bombay, under the supervision of the Collector of Bijāpur District, who is *ex-officio* Political Agent. It comprises the Sātāra *jāgīr* of Jath and the small State of Daphlāpur. The latter, which has an area of 96 square miles, is an integral part of the State of Jath, to which it will lapse on the demise of the widow of the late chief. The Agency lies between 16° 50′ and 17° 18′ N. and 75° 1′ and 75° 31′ E.,

to the west of Bijāpur District, the total area, including Daphlāpur, being 980 square miles. Except for a number of small hills near the town of Jath, the country is flat. Small feeders of the Mān and Bhīma flow through the Jath State. The climate closely resembles that of Bijāpur.

The ruling family claim descent from Lakhmāji, headman of the village of Daphlāpur. In 1680 Satvāji Rao, his son, was appointed *deshmukh* of the subdivisions of Jath, Karajgi, Bardol, and Vanad, and was one of the leading Bijāpur nobles. Temporarily independent after the overthrow of the Bijāpur kingdom, the *deshmukh* finally submitted to Aurangzeb. In 1820 the British Government entered into an engagement with the ancestors of the present chief of Jath, confirming them in the estates they then held. In 1827 the Jath estate was attached by the Rājā of Sātāra to pay off the chief's debts, and restored in 1841. On the annexation of Sātāra in 1849, Jath and Daphlāpur, like other SĀTĀRA JĀGĪRS, became feudatories of the British Government. The latter has more than once interfered to adjust the pecuniary affairs of the Jath *jāgīr*, and, in consequence of numerous acts of oppression on the part of the ruler, was compelled to assume direct management from 1874 to 1885. The chief of Jath, who belongs to the Marāthā caste, is styled Deshmukh and ranks as a first-class Sardār. He holds a *sanad* of adoption, and the succession follows the rule of primogeniture. The small State of Daphlāpur is managed by a Rānī, aided by her *kārbhāri*.

The population (Jath and Daphlāpur) fell from 79,786 in 1891 to 68,665 in 1901, residing in two towns, JATH (population, 5,404) and Daphlāpur (1,475), and 117 villages, the decrease during the decade being due to famine. The only place of importance is Jath town. Hindus number 64,052 and Musalmāns 4,357. The chief castes are Brāhmans, Lingāyats, Marāthās, Rāmoshis, Vaddars, Berads, Mahārs, and Chamārs.

The soil is black and red, but for the most part mixed with gravel. It is poor in the west, but improves as the Bor river is approached. The area of arable land in Jath and Daphlāpur is respectively 797 and 90 square miles; and the area cultivated in 1903–4 was respectively 779 and 89 square miles. The staple crops are *bājra* and *jowār*. Cotton, wheat, gram, and safflower are also grown. The land is specially suited for cattle-breeding. Forest Reserves cover 56 square miles, of which all but 2½ square miles are assigned for grazing. The road from Karād to Bijāpur serves both States. There are no industries of importance. The States suffered in the famines of 1896–7 and 1899–1902, which involved both of them in debt and brought cholera in their train. In 1902 plague broke out in Daphlāpur, and in 1903 in Jath.

The Collector of Bijāpur is Political Agent for both States. There are four criminal and two civil courts in Jath and one in Daphlāpur, where the Rānī exercises the powers of a magistrate of the first class, and, in civil matters, of a first-class Subordinate Judge. Appeals lie to the Political Agent, and original cases beyond their ordinary powers are referred to him by both States. The revenue of the Agency in 1903–4 was about 3½ lakhs of rupees: namely, more than 3¼ lakhs in Jath and Rs. 22,500 in Daphlāpur, chiefly derived from land revenue (2 lakhs). The Jath State pays to the British Government Rs. 6,400 per annum in lieu of the service of 50 horsemen, and a tribute of Rs. 4,840. A survey settlement was first introduced in Jath in 1878 and in Daphlāpur in 1870. It has been of great benefit to the people in sweeping away a number of arbitrary cesses. The rates are moderate. There is no military force; but a force of police is maintained, numbering 81 in Jath and 17 in Daphlāpur. In 1903–4 there were 24 schools in the Agency with 622 pupils; the dispensary at Jath treated about 4,600 patients; and the persons vaccinated numbered nearly 2,000.

Bijāpur District.—District in the Southern Division of Bombay, lying between 15° 49′ and 17° 29′ N. and 75° 19′ and 76° 32′ E., with an area of 5,669 square miles. On the north it is separated by the river Bhīma from the District of Sholāpur and the State of Akalkot; on the east and south-east it is bounded by the Nizam's Dominions; on the south the Malprabha river divides it from the District of Dhārwār and the State of Rāmdurg; and on the west it is bounded by the States of Mudhol, Jamkhandi, and Jath. The name of the District was changed from Kalādgi to that of Bijāpur in 1885. At the same time the head-quarters were transferred from Kalādgi to Bijāpur town.

Physical aspects.

Though alike in many respects, the lands of the District may conveniently be divided into two main sections. The river Kistna divides the two tracts for some distance, but they meet and run into one another lower down in the Muddebihāl *tāluka*. Here also is found a third type of country, the Don valley, a well-defined tract. The 40 miles north of Bijāpur town and the greater part of the Sindgi *tāluka* form a succession of low billowy uplands, bare of trees, gently rounded, and falling into intermediate narrow valleys. On the uplands, the soil, where there is any, is very shallow; tillage is confined to the valleys; from every third or fourth upland issues a stream fringed with wild date-trees. Among the trees are gardens, and beside the gardens stands the village; a little farther on a grove of trees shades the village temple. The barrenness of the country and the dreariness of upland after upland and valley after valley, each like the last, are depressing. During the rainy season, when the uplands are green and the valleys waving

with millet, the effect though tame is not unpleasing. In spite of its barrenness the country has excellent water.

The Don valley begins close to the old city of Bijāpur, and crosses the District from west to east. This tract is of rich deep black soil; the rocky trap uplands disappear, the undulations are much longer and more gradual, and in many parts there is a true plain. The villages lie close to the Don river. This valley is badly off for water. In February, when the whole is a sheet of magnificent millet, wheat, and golden *kusumbi* (*Carthamus tinctorius*), the prospect is extremely fine.

South of the Kistna, towards the west, the level of the rich plain is broken by two lines of hills. These are for the most part rounded and sloping, but the steep and quaintly-shaped sandstone cliffs of Bādāmi form an exception to the rule. Between the hills lie wide barren tracts covered with loose stones; but there are also many stretches of light land, well wooded and bright with patches of red and white soil. To the east extends a black plain, as treeless and dull as that north of the Kistna.

The District is well supplied with rivers and watercourses. Of these, the most important are, beginning from the north, the Bhīma, Don, Kistna, Ghatprabha, and Malprabha, all large rivers flowing throughout the year, and excepting the Don, impassable in the rainy season except by boats. There are also many small streams. The water of the Don is too salt to drink, but the other large streams supply drinking-water of fairly good quality.

The whole northern half of the District is occupied by the Deccan trap formation. The south-east portion is occupied by Archaean rocks, both gneissose and schistose, the latter belonging partly to the auriferous Dhārwār series. In the south-west the Archaean rocks are overlaid by ancient unfossiliferous strata known as the Kalādgi beds, corresponding in age with some of the Cuddapah rocks of Madras, of which a portion is contemporaneous with the Bijāwar of Central India. The Kalādgi rocks are mainly sandstones, associated with slates and limestones. The latter are often siliceous, and pass into banded and brecciated jaspers coloured bright red by hematite, constituting a very characteristic rock in these ancient sediments. To the north of Muddebihāl there are limestone, quartzite, and shale beds and inliers younger than the Kalādgi rocks and known as the Bhimā series, identical with the Kurnool beds, which themselves are related to the Vindhyans.

The flora is of a distinctly Deccan type. There is a sprinkling of coco-nut and palmyra palms, but the chief liquor-yielding tree is the wild date. Other trees found in the District are the mango, tamarind, *jāmbul*, jujube, plantain, wood-apple, sour lime, guava, myrabolam, *papai*, and sandal-wood; also the African baobab or monkey-bread

tree. Among flowering plants are *Cleome*, *Capparis*, *Hibiscus*, *Fagonia*, *Crotalaria*, *Indigofera*, *Cassia*, *Woodfordia*, *Caesulia*, *Echinops*, *Ipomoea*, and *Leucas*.

Of wild animals the hog is very common. The only large game are a few leopards, which find shelter in almost all the ranges south of the Kistna. The wolf and the hyena are generally distributed. The jackal is common everywhere, and the fox in the open undulating plains of Bāgevādi and Muddebihāl. Porcupines abound near Bijāpur, and monkeys, deer, gazelle, and the common Indian hare occur over most of the District. Of birds, peafowl, the painted partridge, the grey quail, and the rain quail are found in large numbers. The green pigeon is found in Bāgalkot. The common snipe and the jack-snipe are cold-season visitants; the painted snipe appears at times and breeds in the District. The large rivers, except the Don, are fairly stocked with fish.

Excluding Bādāmi, where there is much low bushy vegetation, and Muddebihāl, where the ground is marshy, the climate is dry and healthy. March and April are the hottest months, when the thermometer sometimes rises to 109°. In May the intensity of the heat is slightly relieved by occasional thunderstorms and days of cloudy weather. The lowest temperature registered at Bijāpur town is 48° in January, the average being 77°.

The rainfall is extremely irregular, varying greatly in both amount and distribution. It is comparatively more regular and certain in Hungund than in other *tālukas*. Bāgalkot and Bādāmi fare well as a rule. The maximum fall is in Muddebihāl with 27 inches, and the minimum in Hungund with 22 inches. The average at Bijāpur town is 24 inches. At almost all times of the year most parts of the District, the Don valley perhaps more than others, are exposed to strong blighting winds.

History.

Seven places within the limits of the District—Aivalli in Hungund, Bādāmi, Bāgalkot, and Dhulkhed in Indi, Galgali in Bāgalkot, Hippargi in Sindgi, and Mahākuta in Bādāmi—are connected with legends of sages and demons, perhaps in memory of early fights between northern invaders and local chiefs. The legends describe these places as within the Dandakāranya or Dandaka forest. The District in the second century A.D. seems to have contained at least three places of sufficient consequence to be noted in the place lists of Ptolemy: namely, Bādāmi, Indi, and Kalkeri. So far as is known, the oldest of these is Bādāmi, a Pallava stronghold. About the middle of the sixth century the Chālukya Pulikesin I wrested Bādāmi from the Pallavas. From the Chālukya conquest of Bādāmi to the Muhammadan invasion, the history of the District includes four periods—an Early Chālukya and Western Chālukya period lasting

to about A.D. 760; a Rāshtrakūta period from 760 to 973; a Western Chālukya, Kalachuri, and Hoysala Ballāla period from 973 to 1190, with Sinda underlords in South Bijāpur from 1120 to 1180; and a Deogiri Yādava period from 1190 to the Muhammadan invasion of the Deccan at the close of the thirteenth century. In 1294 a Muhammadan army, led by Alā-ud-dīn, the nephew of Jalāl-ud-dīn Khiljī, emperor of Delhi, appeared in the Deccan, sacked Deogiri (the modern Daulatābād in the Nizām's Dominions, to which place the seat of Government had been removed from Bijāpur during the Yādava period), stripped Rāmchandra (the sixth king of the Yādava line) of his wealth, and forced him to acknowledge the supremacy of the Delhi king. In the middle of the fifteenth century Yūsuf Adil Shāh founded an independent Muhammadan state with Bijāpur for his capital. From this time the history of the District is that of the town of BIJĀPUR. In 1818, on the overthrow of the Peshwā, the District was granted to the Rājā of Sātāra, and on the lapse of that State in 1848 it passed to the British. At first part of Sholāpur and Belgaum Districts, it was made into a separate District in 1864.

In the seventh century, the Chinese pilgrim Hiuen Tsiang visited Bādāmi, then the seat of the Chālukya dynasty. He described the people as tall, proud, simple, honest, grateful, brave, and exceedingly chivalrous; the king as proud of his army and his hundreds of elephants, despising and slighting the neighbouring kingdoms; the capital full of convents and temples with relic mounds or *stūpas* made by Asoka, where the four past Buddhas had sat, and, in performing their exercises, had left the marks of their feet; heretics of various sects were numerous; the men loved study, and followed the teachings of both heresy and truth. He estimated the kingdom as nearly 1,200 miles (6,000 *li*) in circumference.

Many inscriptions are found in the District, the principal being at ARASIBIDI (two large Chālukya and Kalachuri inscriptions in Old Kanarese), AIVALLI (A.D. 634), and BĀDĀMI (varying from the sixth to the sixteenth century. The most noteworthy temples are at Aivalli and PATTADKAL. The Meguti temple of Aivalli is remarkable for its simple massiveness, and that dedicated to Galagnāth has a handsomely sculptured gateway. The Pattadkal temples are examples of the Dravidian and Northern Chālukyan styles. The temple of Sangameshwar at Sangam in the Hungund *tāluka* is of great age. BIJĀPUR town is rich in Musalmān buildings of architectural merit. The first building of any size undertaken was the Jāma Masjid (about 1537), which for simplicity of design, impressive grandeur, and the solemn stillness of its corridors, stands unrivalled. The pile of the Ibrāhīm Rauza is most picturesque, and the dome of the tomb known as the Gol-Gumbaz is one of the largest in the world, having an external

diameter of 144 feet. It has a most remarkable echo or whispering gallery.

Population.

The Census of 1872 returned the population at 805,834 persons; the next Census of 1881 at 626,889, showing a decrease of 178,945, attributable to the famine of 1876-8. In 1891 the population rose to 796,339, but again fell in 1901 to 735,435. This decrease is attributed to the famine of 1900 and to emigration. The following table shows the distribution of the population by *tālukas* in 1901:—

Tāluk.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Indi	838	...	121	75,961	91	-18	2,554
Sindgi	810	...	144	86,238	106	- 8	2,524
Bijāpur	869	1	94	102,416	118	- 1	4,721
Bāgevādi	764	...	117	83,620	109	-18	3,106
Muddebihāl	569	1	150	69,842	123	-14	2,963
Bāgalkot*	683	1	160	123,456	181	+ 4	6,209
Hungund	521	1	160	83,615	160	-19	5,986
Bādāmi	615	1	167	110,287	179	+10	5,524
District total	5,669	5	1,113	735,435	130	- 8	33,587

* Includes Bilgi *petha*.

The chief towns are Bijāpur, Bāgalkot, and Tālikotā. Kanarese is the prevailing vernacular, being used by 84 per cent. of the population. Hindustāni and Tamil speakers are also found. Marāthī is only spoken by a few persons in the northern *tālukas*. Classified according to religion, Hindus form 88 per cent. of the total, and Musalmāns 11 per cent.

The Hindus may be classified as Brāhmanical and Lingāyat. The former class comprises Brāhmans (23,000), nearly all Deshasths; Marāthās (20,000), settlers from the Deccan; Berāds or Bedars (27,000), mostly fowlers and hunters; Kurubas (107,000), shepherds and cultivators; Kabligars (24,000), ferrymen; Pānchāls (14,000), general craftsmen; and Vaddars (12,000), professional diggers. The Lingāyat class, numbering over 276,000, includes chiefly Ayyas or Jangams (29,000), who are Lingāyat priests; Banjigs (50,000), traders; and Panchamsālis (58,000), an intelligent class of cultivators. These three with their subdivisions represent roughly the original converts to the sect, and form the Lingāyat aristocracy. Among more recent converts, divided into endogamous groups, are Gānigs (42,000), oil-pressers; Reddis (22,000), traders and cultivators; and Holīas (28,000), scavengers and labourers. The Musalmāns are chiefly Shaikhs (61,000) and Arabs (17,000). The population is mainly dependent on agriculture,

which supports 65 per cent. of the total. About 18 per cent. are engaged in crafts and industries. They are chiefly weavers, and are distributed all over the District. The weavers include various classes and castes, but the principal are Hatkārs, Koshtis, and Padsālis.

Of 866 native Christians in 1901, 396 were Roman Catholics and 394 Lutherans. The Basel German Evangelical or Lutheran Mission has stations at Bijāpur and Guledgarh, and maintains a girls' orphanage with 70 inmates, an Anglo-vernacular school, and ten primary schools with a total attendance of 605 boys and 157 girls. The Roman Catholic Mission also has its head-quarters at Guledgarh, with branches at Bijāpur, Asangi, and Pattadkal.

Agriculture.

The soil belongs to two main classes, black and red. By far the greater part of the open country consists of black soil which retains moisture. With manure and a proper system of tillage the red sandy mould, which is chiefly found near the sandstone hills of Bādāmi, Bāgalkot, and Hungund, though generally poor, yields fair crops. In some parts of the District a careless system of tillage is followed, portions of many fields being allowed to lie waste and become choked with grass. With the growth of the population up to 1876, the area under cultivation steadily increased, and tracts which fifty years ago sheltered the more dangerous wild beasts are now tilled fields.

The District is chiefly *ryotwāri*. *Inām* and *jāgīr* lands occupy about 650 square miles. The chief statistics of cultivation in 1903–4 are shown below, in square miles:—

Tāluka.	Total area.	Cultivated.	Irrigated.	Cultivable waste.	Forest.
Indi	838	782	5	9	...
Sindgi	810	766	2	9	...
Bijāpur	869	772	4	33	3
Bāgevādi	764	713	3	8	5
Muddebihāl	569	529	...	6	...
Bāgalkot	684	528	1	10	105
Hungund	521	451	...	3	37
Bādāmi	615	407	1	21	139
Total	5,670*	4,948	16	99	289

* Statistics are not available for 18¼ square miles of this area. These figures are based upon the latest information

Jowār, grown both as a rains and as a cold-season crop, holds the first place, with 1,900 square miles under actual cultivation. It supplies the chief food of the people. *Bājra* and wheat are also grown to a large extent, covering 595 and 249 square miles respectively, the latter chiefly in Bāgevādi, Bijāpur, Sindgi, and Muddebihāl. Little rice (11 square miles) is produced, and it is of an inferior variety. *Rāle-kāng*, or Italian millet, occupied 51 square miles. Pulses occupied

365 square miles, the chief being *tur*, gram, *kulith*, *mūg*, and *math*. The most valuable, and next to millet the most widely grown crop, is cotton, occupying an area of 860 square miles. Castor-oil, linseed, safflower, and sesamum are grown and exported, safflower in considerable quantities.

Several experiments for the improvement of cotton have been tried in the last fifty years with different kinds of seeds. New Orleans proved successful for a time in brown soils, but it has reverted to the old short staple, the usual experience with exotic seeds. The ryots have availed themselves freely of the Land Improvement and Agriculturists' Loans Act, and from 1894–5 to 1903–4 nearly 35 lakhs were advanced for improvements and for the purchase of seed and cattle. Of this total 11·3, 5·4, and 6·6 lakhs were lent in 1896–7, 1900–1, and 1901–2 respectively.

Though there is no lack of grazing, and though the climate is favourable for rearing animals, imported cattle are generally preferred to the local breeds. The finest cattle bred locally are found in villages bordering the Kistna river. The best imported bullocks, the Mudalshimi, come from Bangalore, Bellary, Chitaldrug, and other places in Madras. Of buffaloes there are two kinds: Gaularu or Gaulis and the ordinary Mhais. The Gaularu buffalo comes from Nāgpur. It has very long horns and is much stouter and gives better milk than the local buffalo. Sheep include three varieties: Muralgini, Patalgini, and Batgini, the best being found in the Bijāpur *tāluka*. There are two kinds of goats: the Kengori which come from Madras, and the Kunyi or Gujarāt goat, famous for the quantity and quality of its milk. The District is a poor place for horse-breeding; but in many parts, particularly in the Indi and Sindgi *tālukas*, ponies of a hardy type are cheap.

Of the total area of land cultivated, about 16 square miles or ½ per cent. were irrigated in 1903–4. The areas supplied by various classes of irrigation are: canals, one square mile; tanks, ½; wells, 13¼ square miles; and other sources, 1¼ square miles. The Kendūr reservoir, about 6 miles north of Bādāmi, is the largest and most important of the reservoirs. It is said to have been built before the Muhammadan conquest and has a catchment area of 22 square miles, and, when full, waters 256 acres of land. Of recent irrigation works the reservoir at Muchkundi, 4 miles south of Bāgalkot, is the most important. It is formed by a masonry dam 60 feet in greatest height and 720 feet long. The area of the lake when full is about 1,059 acres, and its contents are 624 million cubic feet. The catchment area is 26 square miles. The gross area commanded by the tank is 5,570 acres; but the tank is not successful, as the catchment area does not supply sufficient water. Up to 1904 it had involved a capital outlay of 1½ lakhs. The area irrigated in 1903–4 was only 49 acres. Other reservoirs are the two Mamdapur tanks,

situated about 24 miles south-west of Bijāpur, which together irrigate about 600 acres. They are of considerable age, having been constructed in the days of the Adil Shāhī dynasty, but were repaired at a cost of Rs. 7,500 during the famine of 1899–1902. Tanks are not numerous, and sites in the District are not suitable for small works within the means of the people. In Indi, Bijāpur, and Bāgalkot a large area close to the villages is watered from wells and small streams. The famine of 1876 gave an impulse to well-sinking, but most of the wells were temporary. Their average depth varies from 20 feet in Indi to 100 feet in Bāgalkot. The water in some of the wells in the Don valley is brackish, but is occasionally used for irrigation. There are 6,654 wells and 13 tanks for irrigation, and 10 small irrigation works, supplying about 1,500 acres, for which only revenue accounts are kept.

The 'reserved' forest lands are mostly on the hills to the south of the Kistna and between the Kistna and Dhārwār. They cover 289 square miles, including 181 square miles in charge of the Revenue department, and may be divided into two sections: scrub forests and *babūl* Reserves. The scrub forests are composed chiefly of stunted *mashwala* (*Chloroxylon Swietenia*), *kakkai* (*Cassia fistula*), *nīm* (*Melia Azadirachta*), *aval* (*Cassia auriculata*), *hulgal* (*Dalbergia arborea*), *khair* (*Acacia Catechu*), *ippi* (*Bassia latifolia*), and *jaune* (*Grewia Rothii*). The *babūl* Reserves include the lands which yield *babūl*, *nīm*, bamboo, *jāmbul*, and *bor*. The revenue from forests in 1903–4 was Rs. 9,300.

The District of Bijāpur ranks relatively high in mineral wealth. Gold is said to have been found formerly in the Malprabha. Near Kajādoni, 4 miles south-west of Kāladgi, are traces of copper. Iron ore is found in various parts of the District south of the Kistna; but as the cost of smelting makes it dearer than imported iron, it is never sold. Small quantities are used for field tools. Several varieties of gneiss, greenstone, quartzite, sandstone, limestone, clay-slate, and trap are used for building purposes. The extremely beautiful granites and kindred rocks of great variety of colour are capable of taking a high polish.

A large proportion of the people earn a living as weavers, and the peasants add to their income by the sale of hand-woven cloth. The chief manufactures are cotton and silk cloth. In addition to what is used in the District, considerable quantities are sent to Sholāpur, Poona, Belgaum, and the Nīzām's Dominions. Blankets are woven to some extent, and are in demand as far as Bombay. Large quantities of cotton yarn and cloth are also dyed and exported. Except the copper-smiths, whose wares are sent out of the District, none of the Bijāpur artisans have a name for special skill in their crafts.

Trade and communications.

The chief articles of import are piece-goods and rice from Sholāpur, coco-nuts and salt from the coast, betel-nuts and spices from Kanara,

and molasses from Belgaum. In all *tāluka* head-quarters, and in some of the larger villages, a weekly market is held. Amingarh is a great mart for cattle and coast produce. Besides the local trading classes, there is a large body of Gujarātī and Mārwāri money-lenders and cloth merchants in the District.

The East Deccan branch of the Southern Mahratta Railway, opened in 1884, runs through five of the eight *tālukas* of the District, connecting Bijāpur with the more prosperous Districts and trading centres in the north and south. Since the opening of the railway, a network of feeder-roads connecting the principal villages and towns with the railway has been constructed. There are also roads communicating with other Districts, such as the Sholāpur-Bellary road; the Sholāpur-Hubli road from Mira Bay to Sindgi via Amba Ghāt; the Sātāra-Bijāpur and the Belgaum-Ilkal roads. Fifty years ago there were no cart-roads in the District. There are now (1903-4) 748 miles of road, of which 184 miles are metalled. Except 93 miles of metalled and 74 miles of unmetalled roads in charge of the local authorities, all are maintained by the Public Works department. Avenues of trees are maintained along 361 miles.

Famine.

Owing to its uncertain rainfall, Bijāpur is very subject to failure of crops and consequent scarcity of food. Like the rest of the Deccan, this District was left almost utterly waste and deserted after the great famine of 1396-1420; and in 1791 want of rain again caused a grievous scarcity, which is still remembered by the people as the Skull Famine, the ground being covered with the skulls of the unburied dead. In 1803 the Pindāris stripped the country of food, and the price of millet rose to 2 seers per rupee. In 1818-9 a failure of rain caused great distress and raised the price of millet to 6 seers per rupee. Other years of drought and scarcity were 1824-5, 1832-3, 1853-4, 1863-4, and 1866-7. In 1876-7 the failure of rain was more complete and general in Bijāpur than in any other part of the Presidency. The price of millet rose to 4½ seers per rupee and the price of wheat to 2½ seers. The total cost of the famine in the District was estimated at nearly 26 lakhs, of which 23 lakhs was spent on public works and 3 lakhs on charitable relief. The estimated loss of population caused by death and emigration was 234,000, and about 300,000 head of cattle perished. In 1879 the District suffered from a plague of rats, which destroyed about half the crops, and active measures were taken to reduce their numbers. In 1891 monsoon rain only fell in isolated showers. The result was that the whole of the District suffered from famine, prices being nearly doubled. More than 17,000 persons left their villages to find subsistence. Relief works were opened. In 1896 the District was visited by a more severe famine, during which the numbers on relief rose to 134,000 in September, 1897.

Since then the District has passed through a series of unfavourable seasons. In 1899 severe scarcity swept the District and lasted for months. The real famine was confined to the Indi, Sindgi, and Bādāmi *tālukas*, but intense scarcity was felt in the rest of the District. At the height of the famine in September, 1901, 32,291 persons were on relief works and nearly 14,000 in receipt of gratuitous relief. Relief measures were continued till October, 1902. Including remissions of advances to agriculturists and land revenue, this famine cost the state 32½ lakhs.

The District is divided into eight *tālukas*: BĀGEVĀDI, HUNGUND, SINDGI, INDI, BĀDĀMI, MUDDEBIHĀL, BIJĀPUR, and BĀGALKOT. The Collector, who is *ex-officio* Political Agent of the Jath and Daphlāpur States, is aided by two Assistants, who are members of the Indian Civil Service.

Administration.

The District and Sessions Judge at Bijāpur is assisted for civil business by three Subordinate Judges. There are twenty-four officers to administer criminal justice in the District. Theft, house-breaking, and incendiarism are the commonest forms of crime; and in the Muddebihāl and Bāgevādi *tālukas* dwell a considerable number of Chaparbands or counterfeit coiners. These men, who are now classed as a criminal tribe, make lengthy tours over India, coining false money in various places, which is passed into currency by their women-folk. Dacoities are occasionally committed by Mahārs and Māngs, but are not as prevalent in the north of the District as they once were.

As Bijāpur did not become a separate District till 1864, no definite information is obtainable regarding the land management of former rulers. Up to 1843 no attempt was made to revise the Marāthā assessment, but much of the land was measured between 1825 and 1830. The chief characteristics of the old assessment were a high nominal demand and large yearly remissions. The first settlement of the District was commenced in 1843 and completed in 1869. A revision survey settlement was carried out between 1875 and 1889, and the revised rates are now in force. The revision found an increase in the cultivated area of 171 square miles, and enhanced the total revenue from 8·7 to 11·4 lakhs. The average assessment per acre of 'dry' land is 10 annas, of rice land Rs. 3-6, and of garden land Rs. 2.

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue	16,10	18,10	12,04	18,82
Total revenue	19,82	23,72	16,57	23,99

The District has four municipalities: namely, BIJĀPUR, BĀGALKOT, ILKAL, and GULEDGARH, their total average income being Rs. 72,000.

Outside the municipalities, local affairs are managed by the District board and eight *tāluka* boards. The total income of these boards in 1903–4 was 1·92 lakhs, the chief source being the land cess. The expenditure amounted to 1·66 lakhs, including Rs. 56,000 spent on the construction and maintenance of roads and buildings.

The District Superintendent of police is aided by one Assistant and two inspectors. There are ten police stations in the District. The police number 647, including 10 chief constables, 141 head constables, and 496 constables. There is a District jail at Bijāpur, with accommodation for 294 prisoners. In addition, 9 subsidiary jails have accommodation for 133 prisoners. The average number of prisoners in these jails in 1904 was 331, of whom 20 were females.

Bijāpur stands sixteenth among the twenty-four Districts of the Presidency as regards the literacy of its population, of whom 4·6 per cent. (males 9 and females 0·1) could read and write in 1901. In 1888 there were 157 schools with 8,277 pupils. The latter number rose in 1891 to 17,697, including 1,044 in 78 private schools. In 1901 it fell to 15,136, exclusive of 1,281 in 83 private schools. In 1903–4 there were 376 institutions of all kinds attended by 17,657 pupils, of whom 899 were girls. Of the 309 institutions classed as public, 2 are high schools, one is a middle school, and 306 are primary schools. One is managed by Government, 20 by municipalities, 236 by District boards, while 51 are aided and one unaided. The total expenditure on education in 1903–4 was 1·06 lakhs, of which Rs. 17,000 was derived from fees, and Rs. 28,000 from Local funds. Of the total, 84 per cent. was devoted to primary schools.

There are two hospitals at Bijāpur town, one of which is for females, and seven medical dispensaries in the District, with accommodation for 81 in-patients. In these institutions 52,000 persons were treated in 1904, of whom 478 were in-patients, and 1,097 operations were performed. The total expenditure, exclusive of the female hospital, was Rs. 15,000, of which about Rs. 7,300 was met from Local and municipal funds.

The number of persons successfully vaccinated in 1903–4 was 19,574, representing the proportion of 27 per 1,000 of population, which slightly exceeds the average for the Presidency.

[Sir J. M. Campbell, *Gazetteer of the Bombay Presidency*, vol. xxiii (1884); E. Stack, *Memorandum on Land Revenue Settlements* (Calcutta, 1880).]

Bijāpur Tāluka.—Western *tāluka* of Bijāpur District, Bombay, lying between 16° 25′ and 17° 5′ N. and 75° 26′ and 76° 2′ E., with an area of 869 square miles. It contains one town, BIJĀPUR (population, 23,811), the head-quarters; and 94 villages, including BOBLESHWAR (6,300). The population in 1901 was 102,416, compared with 103,718

in 1891. The density, 118 persons per square mile, is a little below the District average. The demand for land revenue in 1903–4 was 1·62 lakhs, and for cesses Rs. 12,000. The south-eastern portion of the *tāluka*, lying along the Don valley, is very fertile and consists of rich black soil; but the northern region is composed of rocky and treeless uplands, unfit for cultivation. A range of unusually lofty uplands lies in the extreme north, and in the south-west are seven low hills. The climate is dry and healthy.

Bijāpur Town (*Vijayapur*, 'Town of Victory').—Head-quarters of Bijāpur District, Bombay, situated in 16° 49′ N. and 75° 43′ E., on the Southern Mahratta Railway, 350 miles south of Bombay, from which it is reached via Poona and Hotgi. Population (1901), 23,811, including 16,697 Hindus and 6,857 Musalmāns. The municipality was established in 1854, and had an average income during the decade ending 1901 of Rs. 30,000. In 1903–4 the income was Rs. 29,000. The construction of the Southern Mahratta Railway and the transfer of the District head-quarters from Kalādgi have restored to Bijāpur some of its former importance. It has a large grain and cattle trade, and contains four cotton-ginning factories. In the town are situated the chief revenue and judicial offices, a Subordinate Judge's court, two hospitals, of which one is for women, and two high schools, one maintained by Government and the other unaided. In addition, there are nine boys' schools with 383 pupils and three girls' schools with 162.

The past greatness of Bijāpur is attested by the remains of numerous palaces, mosques, tombs, and other imposing works. The most noteworthy are: the Ibrāhīm Rauza, or tomb and mosque of Ibrāhīm Adil Shāh II; the Gol Gumbaz, or tomb of Muhammad Adil Shāh, the second largest dome in the world; the Anand Mahal; the Asar Mahal; the Jāma Masjid; the Mehtar Mahal; and the Sāt Mazli. The Begam lake near the town, constructed by Muhammad Adil Shāh in 1653, and named after his wife Jahān Begam, as well as the Torvi aqueduct, show how the city was supplied with water in the days of its splendour. The ruins of Hindu temples on the Ark or citadel indicate that Bijāpur was an important Hindu town in pre-Muhammadan times. There are some large pieces of ordnance, including the *Malik-i-Maidān*, a bronze gun in the muzzle of which a man can be seated.

The founder of the Musalmān State of Bijāpur was, according to Firishta, a son of Murād II, the Osmānli Sultān, on whose death his son and successor Muhammad II gave orders that all his own brothers should be strangled. From this fate one only, named Yūsuf, escaped by a stratagem of his mother. After many adventures Yūsuf is said to have entered the service of the king of Ahmadābād-Bīdar, where he rose to the highest offices of state. On the king's death he withdrew

from Ahmadābād to Bijāpur, and declared himself its king, the people readily acknowledging his claim. Yūsuf reigned with great prosperity, and included Goa among his dominions on the western coast. This, however, was taken from him by the Portuguese a few months before his death. His resources must have been considerable, as he built the vast citadel of Bijāpur. He died in 1511, and was succeeded by his son Ismail, who died in 1534 after a brilliant and prosperous reign. Mallū Adil Shāh, having been deposed and blinded after an inglorious reign of only six months, made way for his younger brother Ibrāhīm, a profligate man, who died in 1557. He was succeeded by his son Alī Adil Shāh, who constructed the wall of Bijāpur, the Jāma Masjid, or great mosque, the aqueducts, and other works. This ruler joined the Sultāns of Ahmadnagar and Golconda against Rāma Rājā, the minister of the powerful Hindu State of Vijayanagar. Rāma Rājā was defeated in 1565 in a great battle to the south of Tālikotā, and, being made prisoner, was put to death in cold blood, and his capital taken and sacked. Alī Adil Shāh died in 1579. The throne then passed to his nephew Ibrāhīm Adil Shāh II, an infant, whose affairs were managed by Chānd Bībī, widow of the late king, a woman celebrated for her talents and energy. Ibrāhīm, on assuming the government, ruled with ability; and, dying in 1626, after a reign of forty-seven years, was succeeded by Muhammad Adil Shāh, under whose reign Sivajī, the founder of the Marāthā power, rose into notice. Shāhji, the father of Sivajī, had been an officer in the service of the Sultan of Bijāpur; and the first aggressions of Sivajī were made at the expense of that State, from which, in the interval between 1646 and 1648, he wrested several forts. Soon afterwards he took possession of the greater part of the Konkan. Muhammad, however, had a more formidable enemy in the Mughal emperor Shāh Jahān, whose son and general Aurangzeb besieged the city of Bijāpur, and was on the point of taking it, when he precipitately marched to Agra, drawn thither by intelligence of court intrigues, which he feared might end in his own destruction. After his departure, the power of Sivajī rapidly increased, and that of the Sultan of Bijāpur proportionately declined. Muhammad died in 1656, and was succeeded by Alī Adil Shāh II, who, on his decease in 1672, left the kingdom, then fast descending to ruin, to his infant son Sikandar Adil Shāh, the last of the race.

In 1686 Aurangzeb took Bijāpur, and put an end to its existence as an independent state. Its vast and wonderful ruins passed, with the adjoining territory, to the Marāthās during the decline of the Delhi empire. On the overthrow of the Peshwā, in 1818, they came into the hands of the British Government, and were included within the territory then assigned to the Rājā of Sātāra. On the transfer of the head-quarters of the District from Kalādgi to Bijāpur, many of the old

Muhammadan palaces were utilized for public purposes; but most of them are now recovering from the rough treatment which they received at the hands of those who devoted them to utilitarian ends. Among the chief works undertaken by Government during the last few years is the restoration of the overhanging sculptured cornices of the Gol Gumbaz, which is still in progress, and of the Jāma Masjid. The unsightly beams which were erected about thirty years ago round the tomb in the Ibrāhīm Rauza to support cracked masonry have now given place to supports more in character with the building, while the Mehtar Mahal, the mosque of Malika Jahān Begam, and the sarcophagus of greenstone have all received attention. The mosque of the Gol Gumbaz, which was used as a travellers' bungalow, has been restored to its former condition, as also the Bokhara mosque, which was for many years occupied by the post office. The upper storey of the *nagarkhāna* of the Gol Gumbaz is now used as a museum in which all objects of interest discovered in the surrounding country are exhibited.

[For a detailed description of the numerous architectural works found in Bijāpur, see the account given by Fergusson in his *History of Indian and Eastern Architecture*, pp. 557-67; *Bombay Gazetteer*, vol. xxiii; H. Cousens, *Guide to Bijāpur* (second edition, Bombay, 1905); and H. Cousens, 'Notes on the Buildings and Remains at Bijāpur,' *Selections from Records of Bombay Government*, ccxlv (1890).]

Bijāwar State.—A *sānad* State in Central India, under the Bundelkhand Agency, lying between 24° 21′ and 24° 57′ N. and 79° 0′ and 80° 39′ E., with an area of 973 square miles. The State takes its name from its chief town, founded by Bijai Singh, one of the Gond chiefs of Garhā Mandlā. It is divided into two separate tracts, consisting of the three home *parganas* and the isolated *pargana* of Karaia. The former are much cut up by a series of jungle-covered spurs which spring out from the Pannā range, rising in places to 1,700 feet above the sea, while the Karaia *pargana* forms a level plain. The State is watered by the Dhasān with its affluent the Bila, and the Ken with its two tributaries the Bairma and Sunar.

The geological formations met with are of unusual interest, the State giving its name to the Bijāwar series of sandstones and shales, one of the most important geological formations in India, of which it contains the type area. Its characteristic rocks, which are here met with in great abundance, are quartzite, sandstones, shales, slates, limestones, banded jaspers, hornstone, breccias, and a considerable deposit of basic volcanic rocks. Rich deposits of a peculiar iron ore are also met with. All the northern part of the State, however, including the chief town, stands upon an outcrop of gneiss, which underlies the Bijāwars. Some diamond mines situated in the Pannā diamond-bearing tract belong to this State. The annual rainfall averages 38 inches.

Bijāwar was originally part of the territory held by the Garhā Mandlā Gonds, and was taken by Chhatarsāl, the founder of PANNĀ, in the eighteenth century. On the partition of his territory among his sons, Bijāwar fell to Jagat Rāj, as part of the Jaitpur State. In 1769 Bijāwar was given to Bīr Singh Deo, an illegitimate son of Jagat Rāj, by his uncle Gumān Singh, then ruler of AJAIGARH. Bīr Singh gradually extended his original holding by force of arms, but was killed fighting against Alī Bahādur and Himmat Bahādur in 1793. The latter restored the State to Kesri Singh, son of Bīr Singh, granting him a *sanad* in 1802. On the accession of the British to the supreme power, Rājā Kesri Singh at once professed his allegiance. He was, however, at the time carrying on a feud with the chiefs of Chhatarpur and Charkhārī regarding the possession of certain territories, and his *sanad* was withheld until the dispute was settled. He died in 1810, and the dispute being arranged, a *sanad* was granted to his son Ratan Singh in 1811, he in return presenting the usual deed of allegiance. Ratan Singh on his accession instituted a State coinage. The chief in 1857 was Bhān Pratāp Singh, who for his services during the Mutiny received a *khilat* and an hereditary salute of 11 guns. He obtained a *sanad* of adoption in 1862, the hereditary title of Mahārājā in 1866, and the prefix of Sawai in 1877; but his maladministration plunged the State into financial difficulties, and, as there were no signs of amendment, it was placed under supervision in 1897. Having no son, he adopted in 1898 Sānwant Singh, second son of the present Mahārājā of Orchhā, who succeeded on Bhān Pratāp's death in 1899. Objections to this succession were raised by the Thākurs of Lakhangaon, and others, who refused to attend the installation ceremony, for which act of contumacy they were detained at Nowgong until they had apologized. The chief bears the titles of His Highness and Mahārājā Sawai, and receives a salute of 11 guns.

The population at the last three enumerations was: (1881) 110,285, (1891) 123,414, and (1901) 110,500, giving a density of 114 persons per square mile. There has been a decrease of 10 per cent. during the last decade. The State contains 343 villages and one town, BIJĀWAR, the capital (population, 5,220). Hindus number 105,985, or 96 per cent.; Jains, 2,035; and Musalmāns, 2,067. The prevailing castes are Brāhmans, 13,500, who form 12 per cent. of the population; Ahīrs, 10,300, or 9 per cent.; Kāchhīs, 9,000, or 8 per cent.; Lodhīs, 7,800, or 7 per cent.; Thākurs, including Bundelā Rājputs, 6,000, or 6 per cent. The principal dialect is Bundelī. Of the population, 48 per cent. are supported by agriculture and 23 per cent. by general labour.

The soil in the different *parganas* varies considerably. Round Bijāwar itself the country is hilly and the soil poor and rocky, while the Karaia *pargana* is of considerable fertility. The total area of

973 square miles is thus distributed: cultivated, 218 square miles, or 22 per cent., of which 23 square miles are irrigable; forest, 429 square miles, or 44 per cent.; cultivable but uncultivated, 168 square miles, or 17 per cent.; and the rest waste. The chief crops are *kodon*, occupying 45 square miles, or 19 per cent. of the cropped area; *kutki*, 27 square miles, or 12 per cent.; barley, 24 square miles, or 10 per cent.; gram, 21 square miles; *urd* and rice, 12 square miles each; and wheat, 9 square miles.

The forests, which occupy 429 square miles, are now being in part 'reserved.' The most important trees are the *mahuā* (*Bassia latifolia*), which supplies the staple food of the poor, especially in bad seasons, the *tendū* (*Diospyros tomentosa*), and the *seja* (*Lagerstroemia parviflora*). A stunted form of teak also abounds.

There are good grounds for believing that the State is rich in mineral deposits, but as yet these have not been fully investigated. Formerly the iron-smelting industry was considerable, but it has decayed of late years. Diamonds are also met with in several places. A considerable export trade in iron once existed, but this has now disappeared, while the distance of the State from all railways has considerably reduced the trade in grain.

The only two metalled roads in the State are the Chhatarpur-Saugor high road, which passes through Gulganj, 10 miles west of Bijāwar; and a feeder, 12 miles long, between Mahatgawān and the chief town. A British post office has been opened at Bijāwar, with a branch at Gulganj.

The State is divided for administrative purposes into four *tahsīls*—Bijāwar, Gulganj, Ragaulī, and Karaia—each under a *tahsīldār*, who is the magistrate and revenue officer of his charge. The Mahārājā has entire control in civil judicial, revenue, and general administrative matters. In criminal cases he exercises the powers of a Sessions Court, subject to the proviso that appeals lie to the Political Agent, and that sentences of death, imprisonment, or transportation for life require the confirmation of the Agent to the Governor-General. He is assisted by a minister, who has immediate control of the various departments. The British criminal codes are followed generally in the State courts.

The total revenue from all sources is 2·3 lakhs, excluding *jāgīrs*, of which 1·2 lakhs is derived from land revenue, Rs. 21,000 from customs, and Rs. 11,000 from tribute. The chief heads of expenditure are general administration (Rs. 76,000), chief's establishment (Rs. 36,000), public works (Rs. 25,000), and police (Rs. 12,000).

The incidence of the land revenue demand is Rs. 1–5–0 per acre of cultivated land, and 5 annas per acre of total area. Of the total area of the State, 368 square miles, or 38 per cent., have been alienated in *jāgīrs*. Until 1902 these were held on feudal tenure (*zābta*), under

which each landholder was bound when called on to provide a certain quota of men and horses. In 1902 this tenure was commuted to a cash tribute. The currency until 1897, when the British rupee was made legal tender, consisted of various local coinages, including the *Ratan shāhi* rupees struck by Mahārājā Ratan Singh at Bijāwar.

The army consists of a body-guard of 132 men, and the State owns 7 serviceable guns. The police force was organized in 1897, and numbers 92 regular and 268 rural police. A jail is maintained at Bijāwar, besides a school with 142 pupils, and a hospital.

Bijāwar Town.—Chief town of the State of the same name in Central India, situated in 24° 39′ N. and 79° 30′ E., 1,200 feet above sea-level, close to a spur of the Pannā range, 12 miles by metalled road from Mahatgawān on the Chhatarpur-Saugor high road and 43 miles thence from the Harpālpur station of the Jhānsi-Mānikpur branch of the Great Indian Peninsula Railway. Population (1901), 5,220. It was founded by Bijai Singh, a Gond chief in the seventeenth century, and was acquired by Chhatarsāl of Pannā in the next century. The town contains a jail, a school, a dispensary, and a guesthouse.

Bijnā.—A petty *sanad* State in Central India, under the Bundelkhand Agency, belonging to the HASHT-BHAIYA JĀGĪRS, with an area of about 27 square miles. It is bounded on all sides, except on the east where it touches the Dhurwai estate, by portions of the Jhānsi District of the United Provinces. Population (1901), 1,578. The *jāgīrdār* is a Bundelā Rājput of the Orchhā house. Dīwān Sānwant Singh, second son of Dīwān Rai Singh of Barāgaon, obtained Bijnā about 1690. After the death of Sānwant Singh the holding was subdivided among his three sons, one share being subsequently reabsorbed into the parent estate. On the establishment of British supremacy, a *sanad* was granted to Dīwān Sujān Singh in 1823, confirming him in possession of his territory. The present *jāgīrdār* is Dīwān Mukund Singh, who succeeded his father Durjan Singh in 1850. It is interesting to note that this small estate has given four Mahārājās to Orchhā, Bhārtī Chand, Vikramājīt, Tej Singh, and Sujān Singh having been adopted from this branch of the family. Number of villages, 4; cultivated area, 4 square miles; revenue, Rs. 10,000. Bijna, the chief town, is situated in 25° 27′ N. and 79° 0′ E., 14 miles off the high road from Jhānsi to Nowgong. Population (1901), 1,092.

Bijnaur.—District, *tahsīl*, and town in the United Provinces. *See* BIJNOR.

Bijni.—Estate in Goālpāra District, Eastern Bengal and Assam, lying between 25° 53′ and 26° 32′ N. and 90° 85′ and 91° 85′ E., in possession of the Bijni family, descended from the Koch king, Nar Nārāyan, who reigned over Kāmarūpa from 1534 to 1584. Nar Nārāyan's armies were victorious from Gargaon and Manipur in the east to Jaintiā

and Tippera in the south; but before his death he allowed his kingdom to be divided between his son Lakshmī Nārāyan and his nephew Raghu Rai. Raghu Rai established his capital at Barnagar in the Barpetā subdivision, and received as his share the Koch territories lying to the east of the Sankosh. He was succeeded by his son Parīkshit, who quarrelled with Lakshmī Nārāyan and was defeated by the Muhammadans, whom the latter summoned to his assistance. Parīkshit's son, Vijita Nārāyan, was confirmed by the Musalmāns as *zamīndār* of the country between the Manās and the Sankosh, and from him the present Bijni family is descended. Under Mughal rule the Rājā paid a tribute of Rs. 5,998, which was afterwards commuted to an annual delivery of 68 elephants. Difficulty was experienced in realizing the tale of the animals in full, and in 1788 it was decided to revert to a money payment, which was fixed at Rs. 2,000 per annum. It is doubtful whether Goālpāra was ever included in the Decennial Settlement which was made permanent in 1793, but this small assessment has always been accepted in lieu of land revenue, though it has sometimes been argued that it is nothing more than tribute. The family now pay a revenue of Rs. 1,500, and cesses amounting to nearly Rs. 19,000, for an estate which covers an area of 950 square miles and has an estimated rent-roll of 2 lakhs of rupees.

On the conclusion of the Bhutān War, the Bijni family put forward claims to hold a large tract of land in the Eastern Duārs, of which they alleged that they were in possession under the Bhutān government. The claim was admitted, and in 1870 a settlement was effected with the Court of Wards on behalf of the minor Bijni Rājā. The precise extent of the estates to which they were entitled was still a matter of uncertainty, but in 1882 it was ruled by the Government of India that the Rājā should receive 130,000 acres. These estates have generally remained under the direct management of Government, who allow to the Rājā 7½ per cent. of the collections as his share of the profits.

Bijnor District (*Bijnaur*).—Northernmost District in the Bareilly Division, United Provinces, lying between 29° 1′ and 29° 58′ N. and 78° and 78° 57′ E., with an area of 1,791 square miles. On the north-east the road which passes along the foot of the Himālayas divides Bijnor from Garhwāl District; south-east and south lie Nainī Tāl and Morādābād; while the Ganges flows along the western border between Bijnor and the Districts of Dehra Dūn, Sahāranpur, Muzaffarnagar, and Meerut. The District of Bijnor, an irregular triangle of which the apex points directly northwards, forms the uppermost portion of the Rohilkhand plain, stretching like a wedge between the valley of the Ganges and the hills of Garhwāl. In the north is a system of small elevations, known as the Chāndī hills, which resemble in geological formation the Siwālik range

Physical aspects.

in Dehra Dūn on the western bank of the Ganges. These hills are little more than rugged and barren rocks, except in the valleys and on the lower slopes. They include an area of about 25 square miles. South of the hills and along the north-east border lies a broad level belt of forest varying from 2 to 10 miles in width, across which flow numerous streams from the hills in the neighbouring District of Garhwāl. Large clearances have been made in places, and cultivation sometimes extends as far as the submontane road. This tract resembles the Bhābar in the adjacent District of Nainī Tāl, but the marshy *tarai* belt found in Nainī Tāl does not occur here. The rest of the District is an open upland plain crossed by river valleys. The largest river is the Ganges, which debouches on the plain near the north of the District, and is there a rapid stream flowing over boulders. Lower down its course is less rapid, its bed becomes wide, and the river is navigable from Nāgal. The first considerable affluent of the Ganges is the Mālin, which rises in the Garhwāl hills and flows across the north-west portion of the District. The river is celebrated in Sanskrit literature, and the scene of Kālidāsa's play of *Sakuntāla* is laid near its banks. It has also been identified with the Erineses mentioned by Megasthenes. The Khoh rises in the Garhwāl hills, east of the Mālin, and flows almost due south, joining the Rāmganga near the border of the District. The latter river crosses the Garhwāl border near the eastern corner, and meanders across the eastern portion of the Nagīna *tahsīl*. Both the Khoh and Rāmgangā are liable to sudden floods which subside as quickly as they rise. Many smaller streams from the lower hills join these large rivers after a short course.

Nearly the whole of the District is situated on the Gangetic alluvium, with a *bhābar* zone of coarse gravels along the north-east border. The Chāndī hills are composed of Upper Tertiary rocks, all in a rapid state of decay by weathering. These rocks comprise, towards the plains, a gentle normal anticlinal arch in middle Siwālik soft sand rock, which is very micaceous. North-east lies the southern limit of a synclinal trough in upper Siwālik conglomerates[1].

The forests of Bijnor will be described later. The rest of the District presents no peculiarities in its flora. Fine groves of mango-trees are found in every part. The river valleys as well as the forest glades produce grasses which are utilized for thatching, for basket-work, for matting, and for making rope and twine. The wild hemp (*Cannabis sativa*) grows abundantly; the leaves are collected, and, when dry, are known as *bhang*, which is used for preparing a refreshing drink.

Tigers and leopards were formerly common in the forests, together

[1] R. D. Oldham, 'Geology of Part of the Gangasulan Pargana,' *Records, Geological Survey of India*, xvii, pt. iv; and C. S. Middlemiss, 'Physical Geology of the Sub-Himālaya of Garhwāl and Kumaun,' *Memoirs, Geological Survey of India*, xxiv, pt. ii.

with *chītal* (*Cervus axis*) and *sāmbar* (*Cervus unicolor*). The deer have, however, been almost exterminated, and the carnivora have consequently retired farther into the hills. A tiger occasionally strays down, and leopards are still met with in ravine tracts. Antelope are common, and a few hog deer and wild hog survive along the Rāmgangā and Ganges. Four-horned deer and barking-deer are occasionally met with in the forests. There are some hyenas, and the lynx is not unknown. Wild elephants come down from the hills during the rains. The chief game-birds are duck, snipe, peafowl, black partridge, jungle-fowl, quail, and sand-grouse.

Its proximity to the Himālayas renders the climate of Bijnor cool and pleasant, while the abundance of drainage channels prevents the District from being as unhealthy as other tracts near the foot of the mountains. The annual rainfall averages 44 inches, varying from 38 near the Ganges to 47 in the north of the District. Between 1864 and 1898 the variations from the average did not exceed 25 per cent. in twenty-seven years, while in four years the fall was in excess, and there were four years of considerable deficit.

History.

Legend ascribes the foundation of Bijnor town to the mythical king Ben or Vena, who is familiar in tradition from the Punjab to Bihār. In the seventh century the Chinese pilgrim, Hiuen Tsiang, visited a kingdom the capital of which has been identified with MANDĀWAR. The early history of Muhammadan rule is obscure, but raids by the Mongols are referred to. In 1399 Tīmūr ravaged the District, fighting several pitched battles and massacring a large number of the inhabitants. Thence he marched to Hardwār, returning to the Doāb. No more is heard of Bijnor till the time of Akbar, when it formed part of the *sarkār* of Sambhal in the *Sūbah* of Delhi. During the most prosperous age of the Delhi empire, the District shared in the general freedom from historical incidents, though in 1566 and again in 1587 peace was disturbed by ambitious *jāgīrdārs* or by rebels fleeing from other parts of India. As the power of the Mughals relaxed, the Rohilla Pathāns began to assert independence, under Alī Muhammad. Although this chieftain had managed to annex the rest of ROHILKHAND by 1740, his first acquisitions in Bijnor seem to have been made in 1748, after his return from exile, while his friend, Dunde Khān, occupied another tract about the same time. The remainder of the District was rapidly acquired, and before his death in 1749 Alī Muhammad made a grant of the northern portion to Najīb Khān, who was to become a great leader. In the forests on the border of the District lies a strong fort, called Lāl Dhāng, which often proved a safe refuge in the struggles between the Rohillas and the Nawābs of Oudh. Here, in 1752, after a trying siege, the Rohillas gave a bond to the Marāthās, as the price of release,

which was afterwards made the excuse for further invasions. Najīb Khān married Dunde Khān's daughter, and gradually extending his influence west of the Ganges, and at Delhi, obtained the title of Najīb-ud-daula and in 1757 became paymaster of the imperial army. His success laid him open to the attacks of jealous rivals; and the infamous Wazīr Ghāzī-ud-dīn called in the Marāthās, who besieged Najīb-ud-daula in the fort of Shukartār on the west bank of the Ganges, but retreated on the approach of the Rohillas. After the battle of Pānīpat, where Najīb-ud-daula distinguished himself, he became Wazīr, and filled the highest post in the kingdom with credit to himself and benefit to the state. After his death in 1770 his son, Zābita Khān, was defeated by the Marāthās, who now ravaged Rohilkhand; and a few years later, in 1774, the Rohilla power east of the Ganges was crushed, and the final treaty by which the territory was incorporated in Oudh was concluded at Lāl Dhāng. The District was ceded to the British by the Nawāb of Oudh in 1801; and four years later Amīr Khān, the Pindāri, rode through it like a whirlwind, recalling the raid of Tīmūr 400 years before. The District then remained quiet till the Mutiny of 1857.

News of the Meerut outbreak reached Bijnor on May 13. The Roorkee sappers mutinied and arrived at Bijnor on the 19th, but they passed on without creating any disturbance, and the District remained quiet till June 1. On that date the Nawāb of Najībābād, a grandson of Zābita Khān, appeared at Bijnor with 200 armed Pathāns. On the 8th, after the outbreak at Bareilly and Morādābād, the European officers quitted Bijnor, and reached Roorkee on the 11th. The Nawāb at once proclaimed himself as ruler, and remained in power till August 6, when the Hindus of the District rose against the Musalmān authority and defeated him for the time. On the 24th the Muhammadans returned in force and drove out the Hindus. The latter attacked their conquerors again on September 18, but without success, and the Nawāb ruled unopposed until April 17, 1858. Our troops then crossed the Ganges, and utterly defeated the rebels at Nagīna on the 21st. British authority was immediately re-established, and has not since been disturbed.

The forests in the north of the District contain many ancient ruins and mounds which have not been fully explored; but Buddhist remains have been unearthed in places. At NAJĪBĀBĀD, the tomb of Najīb Khān, the founder of the town, and a few remains of other buildings are the chief memorials of Muhammadan rule.

Population.

The District contains 16 towns and 2,132 villages. The village sites still preserve the old compact appearance, which was the result of the unsettled times when men built their houses close together for protection, and there are few outlying hamlets. Population has fluctuated considerably. The numbers at the

last four enumerations were as follows: (1872) 737,153, (1881) 721,450, (1891) 794,070, and (1901) 779,451. The variations largely depend on the rainfall, excessive rain causing land to fall out of cultivation. There are four *tahsīls*—BIJNOR, NAJĪBĀBĀD, NAGĪNA, and DHĀMPUR—the head-quarters of each being at a place of the same name. The chief towns are the municipalities of NAGĪNA, NAJĪBĀBĀD, BIJNOR (the District head-quarters), CHĀNDPUR, and DHĀMPUR. The following table gives the chief statistics of population in 1901:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Bijnor . .	483	6	572	203,972	422	+ 2.0	5,248
Najībābād . .	396	2	422	153,896	389	− 1.9	3,558
Nagīna . .	453	2	464	156,898	346	− 14.3	2,816
Dhāmpur . .	459	6	674	265,185	578	+ 4.4	4,837
District total	1,791	16	2,132	779,951	435	− 1.8	16,459

Hindus form 64 per cent. of the total, Musalmāns 35 per cent., and there are 5,730 Aryas, a larger number than in any District in the Provinces except Bulandshahr. The density of population is almost the same as the Provincial average. Between 1891 and 1901 Bijnor suffered both from excessive rain and from drought. Almost the whole population speak Western Hindī, the prevailing dialect being Hindustāni.

Chamārs (leather-dressers and cultivators), 118,000, are the most numerous of the Hindu castes, forming nearly 25 per cent. of the total Hindu population. Rājputs number 72,000, but 61,000 of these are so-called Chauhāns, who intermarry among themselves and therefore are not true Rājputs. Jāts (agriculturists), 55,000; Tagās (agriculturists), 8,000; and Sainīs (cultivators), 20,000, are chiefly found in the west of the United Provinces. Brāhmans number only 26,000. A caste peculiar to the District is that of the Ramaiyās or pedlars (2,200). Among Muhammadans are Shaikhs, 59,000; Julāhās (weavers), 57,000; and Telis (oil-pressers), 15,000. The Jhojhās (6,000) are not found east of Bijnor. Agriculture supports only 47 per cent. of the population, while personal services support 8 per cent., general labour 8 per cent., and cotton-weaving 6 per cent. Chauhāns, Baniās, Jāts, Tagās, and Shaikhs are the largest holders of land; and Jāts, Chauhāns, Shaikhs, Rawās, and Sainīs are the chief cultivators.

Out of 1,853 native Christians in 1901, 1,824 were Methodists. The American Methodist Mission has laboured here since 1859, and has several branches in the District.

Most of Bijnor is included in the uplands, which are divided into three portions. The western tract, near the Ganges, consists of low sandy ridges, the space between which is occupied by a fair loam; but facilities for irrigation are not good. East of this tract the central portion of the District forms the low-lying valley of the Bān, Gāngan, and Karula rivers. This is decidedly more fertile, and opportunities for irrigation are better than in the western tract. Another elevated watershed farther east, which divides the central portion from the Khoh and Rāmgangā rivers, is sandy but more fertile than the western tract. East of the Rāmgangā lies an area the soil of which is moist and fertile, but the deadly climate makes cultivation fluctuate. As in most Districts where Jāts are found, equal care is devoted to all good land, instead of the lands near village sites receiving most of the manure available.

Agriculture.

The tenures are those usually found in the United Provinces. There are 4,348 *zamīndāri mahāls*, thirty-five *pattīdāri*, and 369 *bhaiyāchārā*, the local term for the last being *lānādāri*. The main agricultural statistics for 1903–4 are shown below, in square miles:—

Tahsīl.	Total.	Cultivated	Irrigated.	Cultivable waste.
Bijnor	483	328	8	53
Najībābād	396	188	7	66
Nagina	453	197	14	148
Dhāmpur	459	320	39	51
Total	1,791	1,033	68	318

The chief food-crops, with their areas in square miles in 1903–4, are: rice (221), wheat (271), barley (115), *bājra* (120), and gram (98). Sugar-cane is the most important of the other crops, covering 105 square miles. Cotton and oilseeds are also largely grown.

Cultivation has not extended within the last forty years; but the area sown with the more valuable crops—such as rice, sugar-cane, and wheat—has increased, the area double cropped is rising, and a better variety of wheat has been introduced. Loans under the Land Improvement and Agriculturists' Loans Acts are not taken to any large extent, amounting to only Rs. 77,000 between 1890 and 1903, of which Rs. 40,000 was advanced in the famine year 1896–7.

The ordinary breed of cattle is inferior; but the forests provide ample grazing for cattle from other Districts. An attempt has been made to improve the breed of horses, and two Government stallions are kept. Mule-breeding has become popular, and several donkey stallions are maintained. The sheep are of the ordinary inferior type.

Bijnor is remarkable for the small extent of its irrigation by artificial means. In 1903–4 canals supplied 26 square miles, wells 33, and

other sources 9. The canals are small works, those drawn from the Khoh and Gāngan rivers being maintained by Government; while a third canal, drawn from the Mālin, is a private enterprise. Some of the rivers are used directly for irrigation, especially in years of drought. Masonry wells are practically never used for irrigation; and water is generally obtained, where required, from shallow temporary wells, from which it is raised in a pot by a lever.

Three portions of the forest land in the District are 'reserved' under the Forest Act. The Chāndī forest of 60 square miles, which includes the hills in the north of the District, some islands in the Ganges, and part of the plains, is part of the Ganges division of the Western Circle. In the northern half *sāl* (*Shorea robusta*) is well established; but the southern portions are more open. The forest supplies bamboos and other minor products to Hardwār, and the revenue varies from Rs. 10,000 to Rs. 20,000. The Rehar forest is situated in the south-east of the District and belongs to the Garhwāl forest division. Its area is 26 square miles; and *sāl* and other timber, fuel, and grass are supplied to inhabitants of the neighbourhood, the revenue varying from Rs. 2,000 to Rs. 7,000. The Amsot and Mohanwālī Reserves, managed by the Collector, include an area of 8 square miles.

Kankar or nodular limestone is extremely rare, and is generally imported from Morādābād. Lime is made from the limestone found in the Chāndī hills.

Trade and communications.

The chief industry of the District is the manufacture of raw and refined sugar, which are largely exported. Coarse cotton cloth is woven in many parts, and in a few towns a finer material is produced. There are small local industries at several places, such as the manufacture of Brāhmanical threads (*janeo*) at Bijnor, papier mâché at Mandāwar, carved ebony, glassware, and ropes at Nagīna, and ironwork at Dhāmpur.

Sugar and forest produce are the chief exports, while gram and other grain, salt, piece-goods, and metals are imported. The grain and salt come chiefly from the Punjab. The trade of Western Kumaun largely passes through the District from Kotdwāra at the foot of the hills. The chief commercial centres are the towns of Seohārā, Dhāmpur, Nagīna, and Najībābād on the railway. Before the railway was opened, sugar was exported by road to Meerut or Muzaffarnagar; but the railway now takes about four-fifths of the total exports.

The main line of the Oudh and Rohilkhand Railway passes through the centre of the District, with a branch from Najībābād to Kotdwāra at the foot of the Himālayas in Garhwāl District. A line from Gajraula on the Morādābād-Ghāziābād Railway to Chāndpur in the

south of the District has been surveyed. Communications are very defective. Only 39 miles of road are metalled, while 553 miles are unmetalled. All the former and 17 miles of the latter are maintained by the Public Works department; but the cost of repairs is met almost entirely from Local funds. The metalled roads radiate from Bijnor town to the railway at Nagīna, and to the Ganges on the Meerut and Muzaffarnagar roads. The tracts most in need of improved roads are the northern Ganges *khādar* and the area north-east of the railway. Avenues of trees are maintained on 95 miles.

Famine.

Bijnor has suffered comparatively little from drought. The natural moistness of the soil and the rarity of a complete failure of the rains, due to the proximity of the hills, combine to save a crop in most years, while the profits from sugar-cane have been fairly constant. The dependence for food-grains on other tracts is the most serious factor in prolonged drought. In 1803-4 famine was severely felt; but Bijnor escaped distress in later years till 1837-8, when Rs. 91,000 of the revenue demand was remitted. Famine attacked the District in 1860-1, when Rs. 32,000 was spent on relief, and in 1868-9 the expenditure was 1·8 lakhs. In 1878 the number on relief works rose to over 22,000. Bijnor again escaped lightly in 1896-7, when relief works were opened but did not attract considerable numbers.

Administration.

The Collector is assisted by a member of the Indian Civil Service (when available), and by two Deputy-Collectors recruited in India. A *tahsīldār* is stationed at the head-quarters of each of the four *tahsīls*.

There are two regular District Munsifs, and village Munsifs have recently been appointed. The District is included in the Civil and Sessions Judgeship of Morādābād, criminal work being usually disposed of by the Additional Judge. Crime is not heavy, and Bijnor is not remarkable for any special offences. Female infanticide was formerly suspected in the case of the Jāts, and in 1904 as many as 1,884 persons were still registered and under surveillance.

Bijnor, when acquired by cession in 1801, formed the northern subdivision of the new District of Morādābād. In 1817 it was constituted a separate charge with head-quarters at Nagīna, and in 1824 Bijnor became the capital. The early settlements were for short periods, and were based on rough statements of area and probable out-turn and on a consideration of previous collections. Up to 1822 the system of administration was one of farming; but in that year proprietary rights were first recognized. A rough survey was commenced about 1827, and the first regular settlement on modern principles was made under Regulation IX of 1833 between 1834 and 1839. It was preceded by a regular survey and was carried out in the usual method, by ascer-

taining standard rent and revenue rates. The revenue fixed was 11·2 lakhs, which, though very uneven, was much more moderate than earlier settlements. Another revision took place between 1863 and 1874, when a revenue of 11·8 lakhs was assessed. The last resettlement of the District was made between 1893 and 1898, but four *parganas* were settled in 1901–2. The revenue then fixed amounted to 14·5 lakhs, or about 46 per cent. of the net 'assets.' The incidence is a little more than R. 1 an acre, varying from about 5 annas to slightly more than Rs. 2. Assessments of revenue in Bijnor have always been difficult, owing to the prevalence of grain rents. Cash rents are always taken on account of sugar-cane and cotton, but the produce of other crops is divided equally between the landlord and the tenant. Another custom exists by which for a short period, usually three to five years, the owner of a village agrees with the whole cultivating community to receive from them a lump sum in place of the cash rents and a share of produce. The latest revision of settlement was largely based on rent rates derived from these leases. The soil was classified, and rates paid for different classes were ascertained.

Collections on account of land revenue and total revenue have been, in thousands of rupees:—

	1880–1.	1890–1	1900–1.	1903–4.
Land revenue	12,29	11,93	16,07	14,21
Total revenue	13,87	16,57	21,59	19,77

There are five municipalities: NAGĪNA, NAJĪBĀBĀD, BIJNOR, CHĀNDPUR, and DHĀMPUR; and eight towns are administered under Act XX of 1856. Beyond the limits of these, local affairs are managed by the District board, which has an income and expenditure of about a lakh. In 1903–4 roads and buildings cost Rs. 69,000.

The District contains 20 police stations; and the Superintendent of police commands a force of 4 inspectors, 75 subordinate officers, and 308 constables, besides 210 municipal and town police, and 1,827 rural and road police. The District jail contained a daily average of 256 prisoners in 1903.

Few Districts in the United Provinces are so backward in regard to literacy as Bijnor. In 1901 only 2 per cent. (3·9 males and 0·2 females) could read and write. The number of public schools increased from 128 with 3,691 pupils in 1880–1 to 204 with 8,588 pupils in 1900–1. In 1903–4 there were 209 public schools with 9,307 pupils, including 537 girls, besides 250 private schools with 3,768 pupils. Three of the schools are managed by Government and 107 by the District and municipal boards. Out of a total expenditure on education of Rs. 46,000, Local funds contributed Rs. 35,000 and fees Rs. 9,000.

An attempt has been made by the Arya Samāj to revive the old Hindu system of education, and a *Gurūkul* has been founded at Kāngrī in the north of the District.

There are 10 hospitals and dispensaries, with accommodation for 88 in-patients. The number of cases treated in 1903 was 89,000, of whom 1,500 were in-patients, and 400 operations were performed. The expenditure was Rs. 15,000, most of which was met from Local funds.

About 26,800 persons were successfully vaccinated in 1903-4, representing a proportion of 34 per 1,000 of population. Vaccination is compulsory only in the municipalities.

[*District Gazetteer* (1879, under revision); F. J. Pert, *Settlement Report* (1899).]

Bijnor Tahsīl.—Western *tahsīl* of Bijnor District, United Provinces, comprising the *parganas* of Bijnor, Dārānagar, Mandāwar, Chāndpur, and Bāshta, and lying between 29° 1′ and 29° 38′ N. and 78° 0′ and 78° 25′ E., with an area of 483 square miles. Population increased from 200,039 in 1891 to 203,972 in 1901. There are 572 villages and six towns, the largest of which are BIJNOR (population, 17,583), the District and *tahsīl* head-quarters, CHĀNDPUR (12,586), MANDĀWAR (7,210), JHĀLŪ (6,444), and HALDAUR (5,628). The demand for land revenue in 1903-4 was Rs. 3,96,000, and for cesses Rs. 64,000. The density of population, 422 persons per square mile, is slightly below the District average. The *tahsīl* is bounded on the west by the Ganges, and the Mālin crosses its northern portion. Near the Ganges is a rich alluvial tract, from which a gentle ascent leads to the sandy uplands. In 1903-4 the area under cultivation was 328 square miles, of which only 8 were irrigated.

Bijnor Town (*Bijnaur*).—Head-quarters of the District and *tahsīl* of the same name, United Provinces, situated in 29° 22′ N. and 78° 8′ E., on a metalled road 19 miles from Nagīna station on the Oudh and Rohilkhand Railway. Population (1901), 17,583, of whom 9,429 were Musalmāns. According to tradition, the town was founded by the mythical Rājā Ben or Vena. Its early history is, however, a blank until the time of Akbar, when Bijnor gave its name to a *mahāl* or *pargana*. In the seventeenth century it was the rallying-place of the Jāts, who struggled long with the Musalmāns. It became the head-quarters of the District in 1824, and was occupied in the Mutiny by the rebel Nawāb of Najībābād. The town stands on undulating ground 3 miles east of the Ganges, and is well paved and drained. Besides the District offices, it contains male and female dispensaries, the District jail, and the head-quarters of the American Methodist Mission in the District. Bijnor has been a municipality since 1866. During the ten years ending 1901 the income and expenditure averaged Rs. 11,000. In 1903-4 the income was Rs. 17,000, chiefly from octroi

(Rs. 12,000); and the expenditure was Rs. 16,000. There is some trade in sugar, and the pocket-knives and Brāhmanical threads (*janeo*) made here enjoy more than a local reputation. The District school has 155 pupils, a middle school 282, a girls' school 48, and 8 aided schools 300 boys and 30 girls.

Bijnot (*Winjhrot*).—Ancient fort in the Bahāwalpur State, Punjab, situated in 28° 5′ N. and 71° 45′ E. According to tradition, it was erected by Rājā Wanjho or Bīja Bhātia, and demolished by Shahāb-ud-dīn Ghori in 1175, its first mention in history. Another tradition preserved by Colonel Tod assigns its foundation to Tunno, father of Bīja Rai (the Bīja of the former legend) and grandfather of Deorāj, the founder of Derāwar. It was included in a fief of the Delhi empire under Altamsh, and subsequently formed part of the *Sūbah* of Multān.

Bijolia.—Chief town of an estate of the same name in the State of Udaipur, Rājputāna, situated in 25° 10′ N. and 75° 20′ E., close to the Būndi border and about 112 miles north-east of Udaipur city. The estate consists of 83 villages, and is held by one of the first-class nobles of Mewār, who has the title of Rao Sawai; its income is about Rs. 57,600, and a tribute of Rs. 2,860 is paid to the Darbār. The Raos of Bijolia are Ponwār Rājputs, and their ancestor is said to have come to Mewār from Bayānā in the beginning of the sixteenth century. The ancient name of Bijolia was Vindhyavalli; it is a small walled town, picturesquely situated on a plateau called the Uparmāl. Among places of antiquarian interest may be mentioned three Sivaite temples, probably of the tenth century; a reservoir with steps, called the Mandākinī Baori; five Jain temples dedicated to Pārasnāth; and the remains of a palace built in the twelfth century. There are also two rock inscriptions of the period last mentioned; one gives the genealogy of the Chauhāns of Ajmer from Chāhumān to Someshwar (see *Journal, Asiatic Society, Bengal*, vol. lx, part i, p. 40), and the other is a Jain poem called *Unnathshikhar Purān* (unpublished).

[J. Tod, *Annals and Antiquities of Rajasthan*, vol. ii (1832); A. Cunningham, *Archaeological Survey of Northern India*, vol. vi, pp. 234–52.]

Bīkaner State.—The second largest State in Rājputāna, lying in the extreme north of the Agency, between 27° 12′ and 30° 12′ N. and 72° 12′ and 75° 41′ E., with an area of 23,311 square miles. It is bounded on the north and west by Bahāwalpur; on the south-west by Jaisalmer; on the south by Mārwār; on the south-east by the Shekhāwati district of Jaipur; on the east by Lohāru and Hissār; and on the north-east by Ferozepore. The southern and eastern portions of the State form part of the vast sandy tract known as the Bāgar; the north-west and part of the north lie within the Great Indian Desert, while the north-

Physical aspects.

east corner is the least infertile section. The surface of the country is for the most part covered with undulating sandhills from 20 to over 100 feet high, the slopes of which, lightly furrowed by the action of the wind, suggest the ribbed appearance of the sea-shore. The only rocky hills deserving the name are in the south, close to the borders of Mārwār and Jaipur, and the highest of them, near Gopālpura, is only 600 feet above the level of the plain. The general aspect of Bīkaner is dreary and desolate in the extreme. Elphinstone, who passed through in 1808 on his way towards Kābul, wrote that, within a short distance of the capital, the country was as waste as the wildest parts of Arabia; but during and just after the rains it wears a very different appearance, becoming a vast green pasture-land covered with the richest and most succulent grasses. The only rivers are the Ghaggar in the north-east and the Kātli in the east. The former once flowed through the northern part of the State and, according to Tod, joined the Indus; but it is now dry, except in the rains, and even then the water rarely flows more than a mile or two west of Hanumāngarh. By the construction in 1897, at the joint expense of the British Government and the Darbār, of a weir at Otu, about 8 miles west of Sirsa, the water of the Ghaggar is now utilized for feeding two canals which form the only important irrigation works in the State. The Kātli is a river of Jaipur which, in years of good rainfall, flows for a few miles into Bīkaner territory in the south of the Rājgarh *tahsīl*.

There are two salt lakes, one at Chhāpar in the south near Sūjāngarh and the other at Lūnkaransar, 51 miles north-east of the capital; both are small, and the latter only is worked now. Of artificial lakes the most notable is that at Gajner, 19 miles south-west of Bīkaner city, where the Mahārājā has a palace, shooting-box, and garden.

Nearly the whole of the State is covered with blown sand driven up from the Rann of Cutch by the prevailing south-west winds; the sandhills are of the transverse type, with their longer axes at right angles to the direction of the wind. Nummulitic rocks, limestones, and clays crop out from beneath the sands and are found in wells; coal was discovered in these rocks in a well at Palāna in 1896, and fuller's earth is found in the same formation. At Dalmera, 42 miles north-east of the capital, there is a small outcrop of Vindhyan sandstone, which is largely quarried for building purposes; and superficial deposits of gypsum occur in various parts.

There are no forests, and, for want of water, trees are scarce. The commonest is the *khejra* (*Prosopis spicigera*), the pods, bark, and leaves of which are eaten by cattle, and in times of famine by the poor. Next come the *jāl* (*Salvadora oleoides*) and the *khair* (*Acacia Catechu*). The *babūl* (*Acacia arabica*) is found on the sandhills; a few *shīsham* trees (*Dalbergia Sissoo*) grow spontaneously in the neighbourhood of Sūjān

garh, and there are plantations of *ber* (*Zizyphus Jujuba*) and other trees at the capital. The best timber produced is that of the *rohira* (*Tecoma undulata*). Of bushes, the most common is the *phog* (*Calligonum*); its twigs and roots are used to support the sides of wells and supply material for huts, while its buds are eaten with buttermilk and condiments by the poor. The *sajji* (*Salsola*) is a valuable plant which grows plentifully in the firm soil north of the Ghaggar, and in the south-west of the Anūpgarh subdivision; an impure carbonate of soda, used in washing and dyeing cloth, is obtained by burning the plant. The *lānā*, a shrub of the same species, but of a darker colour, is generally found in conjunction with the *sajji* and yields soda of an inferior quality. The large number of excellent fodder-grasses for which Bīkaner is famous make the country, in years of even fair rainfall, one of the best grazing-grounds in India.

The fauna is not very varied. The Indian gazelle is common everywhere, and antelope and wolves are met with in the north. Wild hog are generally to be found in the bed of the Ghaggar, and there are sanctuaries for them at Gajner and the capital. The State is famous for its imperial sand-grouse, of which, in a good year, enormous bags can be made; and there are a good many bustard, especially the lesser species (*houbāra*).

The climate is dry and generally healthy, though characterized by extraordinary extremes of temperature. During the summer the heat is exceedingly great; hot winds blow with great force in May, June, and part of July, heavy sandstorms are of frequent occurrence, and the sun is so powerful that even the people of the country fear to travel in the middle of the day. On the other hand, the cold in the winter is generally intense, and trees and vegetation are not infrequently injured by the frost. The average mean temperature at the capital is about 81°, with a mean daily range of about 22°.

The annual rainfall for the whole State averages a little under 12 inches, varying from less than 6 inches in the north-west to over 14 inches in the south-east and east. About two-thirds of the rain is received in July and August. The heaviest fall in any one year was nearly 45 inches at Churu, in the south-east, in 1892, while in 1885 less than half an inch fell at Anūpgarh in the north-west and at Hanumāngarh in the north-east.

History.

The State was founded by Bīka, a Rāthor Rājput, the sixth son of Rao Jodha, chief of Mārwār. He is said to have been born in 1439, and twenty-six years later, accompanied by his uncle Kāndhal, his brother Bīda, and others of less repute, started out to conquer the country now known as Bīkaner. The territory was at that time occupied partly by various Rājput clans, such as the Bhātis, the Chauhāns, the Mohils, and the Johiyas; partly by

Jāts, and partly by Musalmāns, prominent among whom were the Bhattis, or, in other words, Bhāti Rājputs converted to Islām. Bīka appears to have been first opposed by the Bhātis in the west, but, by marrying the daughter of the Rao of Pūgal (whose descendant is one of the principal nobles of the State at the present time), he allied himself with the most powerful Bhāti family in that region. He next came in contact with the Jāts, who were constantly quarrelling with each other; the most influential clan of this tribe is said to have been that of the Godāras, who determined to conciliate the invader. Accordingly, they voluntarily acknowledged the sovereignty of Bīka, on certain conditions accepted by the latter, who further bound himself and his successors to receive the *tīka* of inauguration from the hands of the descendants of the head of this clan; and to this day the headman of the Godāras applies 'the unguent of royalty to the forehead of Bīka's successors.' Soon afterwards the rest of the Jāts were subdued; and in 1485 Bīka founded the small fort (at the capital) which still bears his name, while the building of the city itself was begun in 1488. Bīka died in 1504; and his successors gradually extended and consolidated their possessions, until in 1541 Māldeo, chief of Mārwār, invaded the country, slew the Rao, Jet Singh, captured the fort at the capital, and possessed himself of about half the territory. The fort was, however, retaken by Bīkaner troops in 1544; and in the same year Kalyān Singh, son and successor of Jet Singh, joined the imperial army near Delhi, marched with it to Ajmer, and was present at the battle near that city in which Māldeo was defeated. This is the first mention of intercourse between the Bīkaner State and the Muhammadan emperors of Delhi.

In 1570 Kalyān Singh and his son Rai Singh waited on Akbar at Nāgaur (in Mārwār), where, in the words of the latter's historian[1], 'the loyalty and sincerity of both father and son being manifest, the emperor married Kalyān Singh's daughter.' Rai Singh succeeded his father in 1571 and ruled for forty years; he was the first Rājā of Bīkaner, was one of Akbar's most distinguished generals, serving in the country round Attock, in Gujarāt, the Deccan, Sind and other parts, and was rewarded with a grant of 52 districts, including Hānsi and Hissār. He had a place on the list of *mansabdārs* higher than any other Hindu except the chief of Amber (Jaipur); and in 1586 he gave his daughter in marriage to Salīm (afterwards the emperor Jahāngīr), their son, Parwez, being one of those who unsuccessfully strove for the empire with Shāh Jahān. The main fort of Bīkaner was built during Rai Singh's rule. The next chief of note was Karan Singh (1631-69), who, in the struggle between the sons of Shāh Jahān for the imperial throne, threw in his lot with the fortunate Aurangzeb. His last service was in the Deccan, where he founded three villages—namely, Karanpura,

[1] H. M. Elliot, *History of India*, vol. v, pp. 335-6.

Padampura, and Kesri Singhpura—which were held by the Darbār till 1904, when they, together with a fourth village named Kokanwāri, were transferred to the British Government in exchange for two villages in Hissār District and a cash payment of Rs. 25,000. Karan Singh's eldest son, Anūp Singh (1669–98), also served with distinction in the Deccan, took a prominent part in the capture of Golconda, and was made a Mahārājā, a title since held by his successors.

Throughout the eighteenth century there was constant fighting between Bīkaner and Jodhpur, and much land was alternately lost and won. In 1788 Sūrat Singh succeeded to the chiefship, and twenty years later occurred the eighth invasion of Bīkaner by Jodhpur; and it was while the army of the latter State was in a half-hearted manner besieging the fort that Elphinstone passed through Bīkaner on his mission to Kābul. Mahārājā Sūrat Singh treated him with great respect and applied for the protection of the British Government, but this request could not be granted as it was opposed to the policy then prevailing. Between 1809 and 1813 Sūrat Singh, whose extortions knew no bounds and whose cruelty kept pace with his avarice and his fears, plundered, fined, and murdered his Thākurs, with the result that in 1815 there was a more or less general rebellion. The ousted Thākurs recovered their estates, ravaged the country, and defied the Darbār; Amīr Khān appeared on the scene in 1816, and the insurrection had become so serious that the Mahārājā again asked for British aid. A treaty was concluded on March 9, 1818, and British troops entered the State, captured twelve forts and restored them to the Darbār, and suppressed the insurgents. Sūrat Singh died in 1828 and was succeeded by his son Ratan Singh, who, in violation of his treaty engagements, invaded Jaisalmer to revenge some injuries committed by subjects of the latter. Jaisalmer had prepared an army to repel the invasion, and both parties had applied to neighbouring States for assistance, when the British Government interfered, and, through the arbitration of the Mahārānā of Udaipur, the dispute was settled. In 1830 the chief again found some of his nobles troublesome and applied for British aid to reduce them, but this could not be granted. During the next five years dacoity was so rife on the border to the south and south-east that it was decided to raise a special force to suppress it. This force was called the Shekhāwati Brigade, and for seven years the Bīkaner State contributed Rs. 22,000 towards its cost. The Thākurs continued their plundering for a time, but the brigade, under the vigorous leadership of Major Forster, soon brought them to order. In 1842 the Mahārājā supplied 200 camels for the Afghān expedition; in 1844 he agreed to a reduced scale of duties on goods in transit through his country, and he assisted Government in

both the Sikh campaigns. Ratan Singh died in 1851, and was succeeded by his son, Sardār Singh. He did good service during the Mutiny by sheltering Europeans and co-operating against the rebels of Hānsi and Hissār, and as a reward received in 1861 a grant of the Tibi *pargana*, consisting of forty-one villages in Sirsa District. Sardār Singh's rule was remarkable for the constant change of ministers, of whom there were no less than eighteen in the twenty-one years. For a few years the State was well administered; but subsequently affairs fell into confusion, a large amount of debt was incurred, and the exactions of the Mahārājā, in his anxiety to increase the revenue, gave rise to much discontent. In 1868 the Thākurs again rose to resist the extortions of their chief; a Political officer was deputed, and affairs were for the time amicably arranged. Sardār Singh died on May 16, 1872. He had received a *sanad* of adoption in 1862, and his widow and the principal persons of the State selected Dūngar Singh as his successor. The choice was confirmed by Government, and Dūngar Singh was invested with full powers in 1873. The principal event of his time was the rebellion of the Thākurs in 1883. This was due to an attempt on the part of the chief to increase the amount of the tribute payable by them in lieu of military service, and it was not till a British force from Nasīrābād had marched a considerable distance towards Bīkaner that the majority of the Thākurs surrendered unconditionally to the Political Agent. Some of them still held together, but eventually gave in. A Political Agent was permanently located at Bīkaner, and the differences between the chief and his nobles were gradually adjusted. Dūngar Singh died in 1887 without issue, having shortly before his death adopted his brother, Ganga Singh. The choice was approved by Government, and Mahārājā Ganga Singh, who was born in 1880, succeeded as the twenty-first chief of Bīkaner. He was educated at the Mayo College at Ajmer, and was invested with full powers in 1898. During his minority the State was administered by a council presided over by the Political Agent. The principal events of the present rule have been the raising of an Imperial Service camel corps (which has served in China and more recently in Somāliland); the construction of a railway from the Mārwār border in the south to the Punjab border in the north-east; the conversion of the local currency; the discovery of a coal-mine at Palāna; and the great famine of 1899–1900, in relieving which the young chief, within a year of receiving full powers, took the most active personal part. Mahārājā Ganga Singh holds the Kaisar-i-Hind medal of the first class, is an honorary major in the Indian Army, took part in the China campaign, is a G.C.I.E., a K.C.S.I., and A.D.C. to H.R.H. the Prince of Wales. The State pays no tribute, and the chief is entitled to a salute of 17 guns.

The number of towns and villages is 2,110, and the population at each of the three enumerations was: (1881) 509,021, (1891) 831,955, and (1901) 584,627. The decrease of nearly 30 per cent. during the last decade was due partly to emigration in consequence of scarcity in 1891–2 and 1896–7 and of famine in 1899–1900, and partly to excessive mortality, chiefly from cholera and malarial fever, in the same years. The State is divided into the four *nizāmats* of Bīkaner, Reni, Sūjāngarh, and Sūratgarh, with head-quarters at the places from which each is named. The principal towns are BĪKANER CITY, CHURU, RATANGARH, and SARDĀRSHAHR.

Population.

The following table gives the chief statistics of population in 1901:—

Nizāmat.	Number of Towns.	Number of Villages.	Population.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Bīkaner	1	537	194,297	– 30·8	5,946
Reni	4	648	175,113	– 32·2	3,964
Sūjāngarh . . .	3	436	147,172	– 29·5	3,712
Sūratgarh . . .	1	480	68,045	– 18·4	1,262
State total	9	2,101	584,627	– 29·7	14,884

In 1901 Hindus numbered 493,534, or more than 84 per cent. of the total; Musalmāns, 66,050, or more than 11 per cent.; and Jains, 23,403, or about 4 per cent. The only religious sect peculiar to the State is that of the Alakhgīrs. It is neither large nor important, but is interesting from the fact that it was founded by a member of the despised caste of Chamārs, and numbers high-caste men among its adherents. Lālgīr founded the sect about 1830; he denounced idolatry and taught his followers to call only on the 'Incomprehensible' (Alakh), and their sole worship consisted in the repeating of this word 'Alakh.' Charity was to be practised; the taking of life and the eating of flesh was forbidden, and asceticism was encouraged. The sole reward held out to his followers was the attainment of purity, untroubled contemplation, and serenity. There was no future state; all perished with the body, which was finally dissolved into the elements. The Alakhgīrs are chiefly ascetics, though a few are family men; they do not admit Musalmāns; they consider themselves a Jain sect, and respect but do not worship the Jain Rishis, and they wear clothes of a reddish colour like the Dādūpanthis. The language mainly spoken in the State is Mārwārī, one of the four main groups of Rājasthānī.

The most numerous caste is that of the Jāts, who number 133,000, or more than 22 per cent. of the total. As noticed above, they held a considerable portion of the territory prior to the Rāthor conquest, and

the headman of the Godāra clan still has the privilege of placing the *tika* or mark of inauguration on the forehead of each new chief of Bīkaner. The Jāts are now almost all agriculturists. The next most numerous caste is that of the Brāhmans, who number 64,000, or nearly 11 per cent., the principal divisions being Pushkarna and Pāliwāl. They are mostly traders and agriculturists, and generally a hard-working class. After the Brāhmans come the Chamārs (59,000 in number); they are also called Balais, and are workers in leather, cultivators, and village drudges. The Mahājans, mostly Oswāl, Mahesrī, and Agarwāl, number 56,000, and form the great majority of the trading community; many of them are very wealthy and carry on an extensive business in the remotest parts of India. The Rājputs number 54,500, the majority being of the ruling clan, Rāthor. Some hold land, and others are in the service of the Darbār or of the nobles; but the greater proportion are cultivators, and lazy and indifferent as such. The only caste or tribe found in no other State in Rājputāna is that of the Rāths, who number 17,700, mostly in the north; the word *rāth* means 'cruel' or 'ruthless.' They are said to be Rājputs converted to Islām, and are called Pachhādas in Hissār, but their exact origin is doubtful; they cultivate but little land, and their chief occupations are pasturing their own cattle and stealing the cattle of other people. Taking the population as a whole, 415,261, or 71 per cent., are engaged in or dependent on agriculture.

Agriculture.

The southern, central, and western portions of the State form a plain of the lightest class of sandy soil, broken at short intervals by ridges of almost pure sand. The northern limit of this tract may be roughly drawn at the old bed of the Ghaggar. The country to the north is the most fertile portion of the State; the soil is more level, and principally consists of a light loam, improving in quality as one goes eastwards to the Hissār border. In the eastern districts the soil is a sandy loam, for the most part well adapted to the conditions of the local rainfall; while in the south-east it is less loamy, and sandhills are more frequently met with. The agricultural methods employed are of the simplest description. For the *kharīf* or autumn crop only one ploughing is given, and the seed is sown at the same time by means of a drill attached to the rear of the plough. The labour of ploughing is very small in the light and sandy soil, and with a camel about 37 acres can be ploughed and sown for the *kharīf*, at the rate of about 2 acres a day. More trouble is taken for the cultivation of the *rabi* or spring crop in the loamy soil. The land receives two preliminary ploughings at right angles to each other, and is harrowed and levelled after each in order to keep in the moisture; the seed is sown at the third ploughing, and more attention is paid to weeding than in the case of the autumn crop. In the central sandy tract there

is practically only one harvest, the *kharīf*, and the principal crops are *bājra*, *moth*, and *jowār*. The cultivation of *rabi* crops, such as wheat, barley, and gram, may be said to be confined to the Sūratgarh *nizāmat* in the north and portions of the Reni *nizāmat* in the east.

Agricultural statistics are available from 1898–9, but only for the *khālsa* area, or land paying revenue direct to the State. This area is liable to fluctuation, and may at the present time be put at 7,372 square miles, or rather less than one-third of the State. The area for which returns exist is 6,539 square miles, from which must be deducted 119 square miles not available for cultivation, leaving an area of 6,420 square miles. The net area cropped in 1903–4 was 933 square miles, or about 14 per cent. of the total *khālsa* area available for cultivation. The areas under the principal crops were: *bājra*, 222 square miles, or about 24 per cent. of the net area cropped; gram, 25 square miles; *til*, 21 square miles; barley, 18 square miles; *jowār*, 11 square miles; and wheat, 4 square miles. A few acres bore Indian corn in the north, cotton and rapeseed in the north and east, or tobacco in the east and south.

Cattle, sheep, and camels are an important part of the wealth of the agricultural population, and in the almost uncultivated tracts in the north-west and west they form practically the only source of income of the pastoral tribes found there. The sheep are famous; but the riding camels have somewhat deteriorated of late, and to encourage breeding a fair is held yearly at the capital in the cold season. Other important cattle fairs are the Gogāmeri held in August and September at Gogāno, near Nohar in the east, and one at Kolait, 25 miles south-west of the capital. Attempts are being made to improve the breed of sheep by importing Australian rams.

Of the total area (933 square miles) cultivated in 1903–4, 20 square miles, or about 2 per cent., were irrigated: namely, 15½ square miles from canals, and 4½ from wells and other sources. Up to 1897, with the exception of a few plots watered by wells in the east, and a small area irrigated from the Western Jumna and Sirhind Canals, artificial irrigation was unknown in the State. The Ghaggar floods irrigated by natural flow a small area in the north, and occasionally the Kātli river benefited a few villages in the east. The Ghaggar canals, already referred to, were constructed in 1896–7, and are two in number. The northern runs for more than 29 miles and the southern for 22 miles in Bīkaner territory. The total capital outlay of the Darbār on these canals to the end of 1904–5 was 4·7 lakhs. The area irrigated from them in Bīkaner territory during the eight years ending 1904–5 averaged about 17 square miles, the income about Rs. 15,700, and the Darbār's share of working expenses Rs. 10,800.

The principal mineral worked in the State is coal. It was discovered in 1896 while sinking a well at Palāna, about 14 miles south of the capital. Operations were started in 1898, and the colliery was connected with the railway in 1899 by a siding 10 miles long. The seam is over 20 feet in thickness, 250 feet below the surface, and 50 above water-level. More than two million tons of coal are said to exist, and only in one direction has the seam shown signs of disappearing. The total capital outlay (excluding the cost of the railway siding) was a lakh to the end of 1904–5; in that year 44,450 tons were sold, the total earnings were Rs. 86,100, the working expenses Rs. 15,700, and the net earnings Rs. 70,400, or a profit of 70 per cent. on the capital cost. The colliery gives employment to about 100 labourers daily; the average price of the coal at the mine head is about Rs. 2–9–0 per ton. The coal is of inferior quality, but when mixed with the Bengal variety is found satisfactory, and is largely used on the Jodhpur-Bīkaner Railway and by the State public works department; an increasing amount is annually exported to the Punjab. The salt lakes at Chhāpar and Lūnkaransar have already been mentioned. By the agreement concluded with the Darbār in 1879 the total aggregate out-turn is restricted to 30,000 maunds, or about 1,100 tons a year. The Lūnkaransar source alone is worked now; the salt, which is of inferior quality and consumed only by the poor or used for curing skins and other antiseptic purposes, is produced in large solar evaporation pans excavated in the bed of the lake. Excellent red sandstone is quarried near Dalmera, on the railway 42 miles north-east of the capital. By the aid of a 3-ton crane erected in 1899–1900 the output has greatly increased, and is now about 3,500 tons a year. The sale proceeds in 1904–5 were about Rs. 14,000, compared with Rs. 11,000 in the preceding year. Limestone is found in many localities, and fuller's earth is quarried to the south-west of the capital; it is used as a hair-wash and for dyeing cloth, and is exported in considerable quantities to the Punjab. A copper mine was discovered about the middle of the eighteenth century near Bīdāsar, 70 miles east-by-south-east of the capital, but it has not been worked for many years; it is, however, now being examined by a company to whom a mining and prospecting concession was granted in 1904.

Minerals.

The principal manufactures are woollen fabrics, carpets, ivory bracelets, pottery, lacquer-ware, leathern water-bags, and sweetmeats. Of these the *lois*, or woollen shawls, are of very fine texture, and the carpets are famous. The chief exports are wool, woollen carpets and rugs, rapeseed, sugar-candy, saltpetre, soda, and fuller's earth; while the chief imports are cereals, piece-goods, cotton, sugar and molasses, opium, tobacco, and metals. The exports and imports are mostly carried by railway;

Trade and communications.

camels, however, are used in carrying goods to and from Bhiwāni and Hissār.

The Bikaner section of the Jodhpur-Bīkaner Railway (metre gauge), which runs through the State from the Mārwār border on the south to the Sirsa border in the extreme north-east, and thence to Bhatinda, was constructed between 1889 and 1902 at the cost of the Darbār. The total length in Bīkaner territory, including the Palāna colliery siding, is a little more than 245 miles. The first section, from the Mārwār border to Bīkaner city, was opened in December, 1891, and the extensions to Dalmera, Sūratgarh, and finally to Bhatinda (in the Punjab) were completed in 1898, 1901, and 1902 respectively. The total capital outlay by the Darbār to the end of 1904-5 was 51 lakhs; and in that year the total earnings and working expenses were respectively 7.4 and 3.4 lakhs, leaving a net profit of 4 lakhs, or nearly 8 per cent. on the capital outlay. The total length of metalled roads is 46¾ miles; these roads are all in the vicinity of the capital and are maintained by the State.

Imperial postal unity was accepted by the Darbār in 1904, and there are now twenty-nine post offices in the State. In addition to telegraph offices at the twenty-one railway stations, there are four British telegraph offices.

In a desert country like Bīkaner, where the rainfall is precarious, and there is practically no artificial irrigation, famines and scarcities are not uncommon visitors. A general famine is expected once in ten years and a local failure once in four; extensive emigration is the accustomed remedy. Since the beginning of the nineteenth century famines are known to have occurred in 1834, 1849, and 1860, but the first of which any details are available is that of 1868-9. The Darbār did little or nothing except to distribute cooked food in the city, at a kitchen which had shortly to be moved several miles off, in consequence of the number of dead and dying; and the only relief work was a small tank, which was soon closed for want of funds. The price of *bājra* rose to 6 seers per rupee; and the State is said to have lost one-third of its population and nine-tenths of its cattle. The next famine was in 1891-2, when the area affected was 15,340 square miles, mostly in the north, where the *kharīf* harvest failed for the eighth year in succession. Relief works, chiefly tanks, repairs to wells, and earthwork for the railway, were started in September, 1891, and closed in August, 1892; and during this period more than 1,151,000 units found employment, while over 404,000 units were relieved gratuitously. Grass was very scarce, and was selling at 35 seers per rupee, and about half the cattle are said to have died, but of these not more than 10 per cent. were really valuable. The number of emigrants was estimated at about three times that of ordinary years.

Famine.

Prices rose to 8 seers per rupee for wheat, *bājra*, and *moth*; but the average was about 10, and the large imports of grain and the facilities afforded by the railway prevented the famine from pressing severely on the people. The total expenditure on direct relief, including more than 2 lakhs of land revenue remitted, was about 3·3 lakhs, and advances to agriculturists and suspensions of land revenue amounted to a further sum of Rs. 53,000. There was severe scarcity over three-fourths of the State in 1896–7; the relief works consisted chiefly of the Ghaggar canals and the railway. More than 3,560,000 units were relieved, either on works or gratuitously, at a cost exceeding 3·5 lakhs, and suspensions of land revenue and advances to agriculturists were granted. The prices of grain averaged from 7 to 9 seers per rupee, while grass was very scarce, and the mortality among the cattle was heavy. The last famine was that of 1899–1900. The average rainfall for the whole State in 1899 was 3½ inches, and the harvest naturally failed; but owing to the liberal expenditure of the Darbār and the well-considered measures of relief, personally supervised by the Mahārājā, the people suffered less than might have been expected. Relief works and famine camps were started in August, 1899, and maintained till October, 1900. Over 9,348,000 units were relieved on works and over 1,840,000 gratuitously, and the largest number relieved on any one day was nearly 48,000. About 22 per cent. of the population emigrated, and 75 per cent. of the cattle are said to have died. Thanks to the railway, the price of grain was never as high as 8 seers per rupee. The total expenditure on direct relief was 8·5 lakhs, of which nearly half was subscribed by the leading Seths or bankers, who have a high reputation for benevolence; land revenue suspensions amounted to 4·7 lakhs, and Rs. 85,300 was granted as loans to agriculturists.

Administration.

For administrative purposes the State is divided into four districts or *nizāmats*, each under an officer called a *nāzim*; and these are again subdivided into eleven *tahsīls* under *tahsīldārs*, and seven smaller units, each under a *naib-tahsīldār*, to which the name sub-*tahsīl* has been given. An officer is in charge of each important department, and at the head of affairs is the Mahārājā, who has exercised full powers since 1898. His Highness is assisted by five secretaries, to each of whom are allotted certain departments; and there is a council of five members, which is primarily a judicial body, but is consulted in matters of importance. The State has its own Codes and Acts for the guidance of its judiciary, based largely, if not entirely, on the similar enactments of British India; for example, the Indian Penal and Criminal Procedure Codes were introduced in their entirety in 1897. The lowest court is that of the *naib-tahsīldār*, who is a third-class magistrate, and can try civil suits not exceeding Rs. 300 in value. Next come the *tahsīldārs*, who are second-class magistrates and decide

suits not exceeding Rs. 500 in value. The *nāzims* hear appeals against the decisions in civil or criminal cases of the lower courts, are themselves magistrates of the first class, and decide suits not exceeding Rs. 10,000 in value. The Appellate Court hears all appeals against the decisions of *nāzims*, tries civil suits beyond their powers, and on the criminal side can pass a sentence of ten years' imprisonment. The council is the highest appellate court of the State, and has powers of revision in certain cases; it deals with all murder cases, submitting them with its opinion to the Mahārājā, who alone can pass sentence of death. In addition to these tribunals, there are courts of honorary magistrates at the capital and the town of Nohar, and a Munsif's court at the capital. The former have the powers of second-class magistrates, and decide petty civil suits relating to immovable property, while the latter can try suits not exceeding Rs. 500 in value.

The normal revenue of the State is about 26 lakhs, and the expenditure about 21 lakhs. The chief sources of revenue are: land (including irrigation), 6·7 lakhs; customs, 6 lakhs; railway (including telegraphs), about 6 lakhs; judicial (including court-fees, stamps, &c.), 1·4 lakhs; minerals (including Rs. 6,000 paid by Government under the Salt agreement of 1879), 1·5 lakhs; and tribute from *jāgīrdārs*, about 3 lakhs. The main items of expenditure are: privy purse and household, 3·4 lakhs; cost of administrative staff (civil and judicial), 2·4 lakhs; railway, 2·6 lakhs; army, 2·4 lakhs; public works, 2 lakhs; police, 1·1 lakhs; medical department, including municipalities, Rs. 75,000; and customs, Rs. 50,000. The financial position is sound; there are no debts.

The State had formerly a silver and copper coinage of its own, the privilege of coining having been granted by the Delhi emperor about the middle of the eighteenth century; but on February 16, 1893, an agreement was concluded between the Darbār and the Government of India, under the Native Coinage Act, IX of 1876, and, in accordance therewith, 10 lakhs of Bīkaner rupees were made legal tender by being recoined at Bombay, and in 1895 copper coins were struck for the State at the Calcutta mint and put into circulation. Under the agreement, the Darbār, among other things, abstains from coining silver and copper in its own mint for a period of thirty years.

There are two main tenures in the State: namely, *khālsa*, or land under the direct management of the Darbār; and land held by grantees, whether individuals or religious institutions. In the *khālsa* area, except in the Tibi villages where the *zamīndārs* have transferable rights, the proprietary right in the land as a rule belongs to the Darbār, and the cultivator's right of occupancy depends on his ability to meet the demand for revenue. Some of the land held by grantees is revenue-free, while for the rest a fixed sum is paid yearly or service is performed. The

jāgīrdārs, or *pattadārs* as they are usually called, are for the most part the nobles of the State; they formerly served the Darbār with troops, but this obligation has now been commuted for a money payment or tribute (*rakm*), which varies in amount in different estates but is generally about one-third of the income. They have also to pay one year's revenue as *nazarāna*, or fee on succession, and other cesses on such occasions as the Mahārājā's accession or his marriage. Their estates descend from father to son (or, with the sanction of the Darbār, to an adopted son), but are liable to resumption for serious offences against the State. Many villages are held revenue-free (*betalab*) by the chief's near relations or connexions by marriage, or by those *pattadārs* whose estates have been attached or confiscated but to whom lands have been given for maintenance. Such grants are temporary and can be resumed at the pleasure of the Darbār; the holders are expected to serve the chief on certain occasions. Lastly, there are *sāsan* villages or lands granted to Brāhmans and temples, which are held revenue-free and practically in perpetuity.

In the *khālsa* area, prior to 1884, there was no uniform system of assessment and revenue collection. The commonest method was to measure, every second or third year, the area held by each cultivator and assess it at a cash rate per *bīgha*. The sum so calculated was paid by the cultivator, with the addition of certain cesses fixed with no reference to the area of the land held. Occasionally a share of the produce, either by actual division (*batai*) or by appraisement (*kankūt*), would be taken instead of, and sometimes in addition to, a cash rate. In other cases a lump assessment (*ijāra*) would be annually fixed for a village and distributed over the total cultivated area, excluding the fields of the *chaudhris* (headmen) and some of the village menials. In the central sandy tract the revenue was collected by a system which was a combination of rates on ploughs and cattle with a poll-tax and some additional items; but, whatever the method of assessment employed, there was little hesitation at any time in levying new and irregular cesses. In 1884 it was decided to undertake a summary settlement of the *khālsa* villages, excluding those in the Tibi *pargana*, to assess and collect on some uniform system in place of the haphazard methods described above. This settlement was completed in 1886, and introduced for a period of five years, subsequently extended to eight. Each village was assessed at a lump sum, for the payment of which the *chaudhris* became jointly responsible. The sum assessed was calculated by applying to the cultivated and waste areas rates which were considered to be suitable; these rates did not vary from village to village, but were uniform throughout an assessment circle or subdivision of a *tahsīl* made for assessment purposes.

The first regular settlement was made by a British officer from the

Punjab in 1892–3, and came into force in 1894 for a period of ten years, recently extended by three years. The principal change made was to class almost all the villages in the Sūratgarh *nizāmat* (except in Tibi) as *ryotwār* or *khātawār*, each cultivator being responsible for payment of the assessment imposed on the land held by him, whether cultivated in a particular year or not. The remaining villages are joint; there is a fixed lump assessment for the payment of which the joint village body are, as against the State, jointly and severally responsible, while among themselves each member is responsible for the amount of revenue entered opposite his name in the settlement record. The average assessment per acre on 'wet' land is about Rs. 2–11, and that on 'dry' land varies from 2½ to 8¼ annas. Suspensions and remissions of revenue are freely granted in times of scarcity. In the Tibi *pargana* the system of tenure is *zamīndāri*. A twenty years' settlement had been made in 1856 by the British Government. Five years later the tract was granted to the State for services rendered during the Mutiny, and for seven years the Darbār disregarded the settlement; but, on the villagers complaining to Government, the Mahārāja was required to abstain from interference with their rights, and in 1869 he signified his intention to continue the settlement for seven years beyond the date on which it would have expired. A new settlement was accordingly made in 1883, and is now being revised.

The State maintains an Imperial Service camel corps 500 strong, and an irregular local force of 380 cavalry, 500 infantry, and 38 artillerymen, at a cost of about 2.4 lakhs a year. There are altogether 94 guns, of which 33 are serviceable. The camel corps was raised between 1889 and 1893 as a contribution to the defence of the empire, and is called the Ganga Risāla after the present chief. It served in China in 1900–1 as an infantry regiment, and a detachment of about 250 men mounted on camels did particularly well in Somāliland in 1903–4. The State now contributes to no local corps or contingent, though formerly (1836–42) it paid Rs. 22,000 a year towards the cost of the Shekhāwati Brigade. There are no cantonments in Bīkaner territory, but the 43rd (Erinpura) Regiment furnishes a small detachment of cavalry and infantry (32 of all ranks) for escort and guard duty at the residence of the Political Agent.

The total strength of the police force is about 900, of whom about 200 are mounted, mostly on camels. The whole is under a general superintendent, and there are separate superintendents for the districts and the city. The force costs about 1.1 lakhs a year, and there are 70 police stations. Besides the Central jail at the capital, there are District jails at Reni and Sūjāngarh in which prisoners sentenced to one year or less are confined. These three jails have accommodation for 742 prisoners; and in 1904–5 the daily average number was 375 and

the cost about Rs. 25,000, both figures being considerably below the normal. The jail manufactures yield a net profit of about Rs. 20,000 a year, and consist of carpets (specially famous at the Central jail), rugs, woollen shawls, blankets, curtains, rope, &c.

In the literacy of its population Bīkaner stands thirteenth among the twenty States and chiefships of Rājputāna, with 2·5 per cent. (4·7 males and 0·2 females) able to read and write. In 1905, excluding indigenous schools such as *chatsāls*, 38 institutions, with 2,011 pupils on the rolls, were maintained by the State. The daily average attendance was 1,543, and the expenditure on education, including Rs. 3,000 spent at the Mayo College at Ajmer, was about Rs. 28,400. Education is given free throughout the State. Save at the high school, from which, since its affiliation to the Allahābād University in 1897, 32 boys have passed the matriculation and middle school examinations, the school for the sons of nobles, and three schools in the districts, the vernacular alone is taught. Female education is backward; there is but one girls' school in the State, at the capital.

The State possesses 13 hospitals and 3 dispensaries, with accommodation for 191 in-patients. In 1904 the number of cases treated was 110,409, of whom 1,900 were in-patients, and 9,367 operations were performed. The total expenditure was about Rs. 40,500.

Vaccination is nowhere compulsory, but is on the whole popular. In 1904-5 a staff of 12 men successfully vaccinated 21,678 persons, or nearly 37 per 1,000 of the population.

[P. W. Powlett, *Gazetteer of the Bīkaner State* (1874); P. J. Fagan, *Report on the Settlement of the Khālsa Villages of the Bīkaner State* (1893); W. H. Neilson, *Medico-topographical Account of Bīkaner* (1898); *Reports on the Administration of the Bīkaner State* (1893-4 to 1895-6, and 1902-3 to date).]

Bīkaner City ('the settlement or habitation (*ner*) of Bīka').—Capital of the State of the same name in Rājputāna, situated in 28° N. and 73° 18′ E., 1,340 miles by rail north-west of Calcutta and 759 miles almost due north of Bombay, on the Jodhpur-Bīkaner Railway. Bīkaner is the fourth largest city in Rājputāna. Its population at each of the three enumerations was: (1881) 33,154, (1891) 50,513, and (1901) 53,075. In the last year Hindus numbered 38,796, or more than 73 per cent. of the total; Musalmāns, 10,191, or more than 19 per cent.; and Jains, 3,936, or 7 per cent.; there were also a few Christians, Sikhs, Pārsīs, and Aryas.

The city, which was founded in 1488, is situated on a slight elevation about 736 feet above sea-level, and has an imposing appearance, being surrounded by a fine wall crowned with battlements, and possessing many lofty houses and temples and a massive fort. The wall, 4½ miles in circuit, is built wholly of stone, and has five gates and six sally-ports.

It is 6 feet thick and from 15 to 30 feet high, including a parapet 6 feet high and 2 feet thick. There is a ditch on three sides only, the ground on the southern face being intersected by ravines which have broken up the whole plain in that quarter; the depth of the ditch is about 15 feet and the breadth 20 feet.

The old fort, built by Bīka three years before he founded the city, is picturesquely situated on high rocky ground close to, and on the south-west side of, the city. It is small, and now rather a shrine than a fort; near it are the cenotaphs of Bīka and two or three of his successors, as well as those of some persons of less note. The larger fort is more modern, having been built by Rājā Rai Singh between 1588 and 1593; it contains the old palaces, and is situated about 300 yards from the Kot Gate of the city. It is 1,078 yards in circuit, with two entrances, each of which has three or four successive gates; and its rampart is strengthened by numerous bastions about 40 feet high, and a moat running all round in a direction parallel to the curtains without following the curve of the bastions. The moat is 30 feet wide at the top but narrow at the bottom, and from 20 to 25 feet in depth. This fort has been besieged several times, but is said to have never been taken, though the old one once was. The palace buildings, some of which are handsomely decorated with coloured plaster, are the work of successive chiefs, nearly every one of whom has contributed something. The latest addition is the spacious Darbār hall, called Ganga Niwās after the present Mahārājā; it is a fine building, the interior being of carved red sandstone, the ceiling of carved wood and the floor of marble, but being of different material and architectural style it does not blend very well with its surroundings. A fine library of Sanskrit and Persian books is maintained in the fort.

The city is irregularly square in shape and contains many good houses, faced with red sandstone richly carved, the tracery being called *khudai* or *manowat*; but the majority of these houses are situated in narrow tortuous lanes where they can scarcely be seen. The poorer buildings are besmeared with a sort of reddish clay, abundant in the ravines near the city, which gives the place an appearance of neatness and uniformity, the walls being all red and the doors and windows white. The north-western portion of the city, where the richest bankers reside, was so much congested that it was found necessary to extend the wall in that direction so as to bring in a considerable area of habitable land. This is being rapidly built over, while in the northern and north-eastern portions, where formerly there were only a few small houses, such public buildings as the jail, hospital, high and girls' schools, post office, and district courts have been erected. The total number of wells in the city and fort is 45, of which 5 are fitted with pumping engines; water is found from 300 to 400 feet

below the surface, and, though not plentiful, is generally excellent in quality. There are 10 Jain monasteries (*upāsāras*) which possess many old manuscripts, 159 temples, and 28 mosques; but none of these buildings is particularly striking in appearance. Outside the city the principal buildings are the Mahārājā's new palace called Lālgarh, a handsome edifice of carved red sandstone, fitted with electric light and fans; the Victoria Memorial Club, the new public offices called Ganga Kacheri, and the Residency.

Bīkaner is famous for a white variety of sugar-candy, and for its woollen shawls, blankets, and carpets. Since the establishment of a municipality in 1889, the sanitation and lighting of the city have been greatly improved. The average income of the municipality is about Rs. 10,600 a year, derived mainly from a conservancy tax and a duty on *ghī*; and the average expenditure is about Rs. 31,400, the deficit being met by the Darbār. A number of metalled roads have been constructed in the city and suburbs, the principal one from the new palace to the fort being lit by electric light. The Central jail is probably the best in Rājputāna; it has accommodation for 590 prisoners. In 1904–5 the daily average number of inmates was 300, the expenditure was Rs. 20,000, and the jail manufactures yielded a net profit of Rs. 9,400. There are seven State schools at the capital, one of which is for girls; and in 1904–5 the daily average attendance was 462 boys and 85 girls. The principal educational institution is the high school, which is affiliated to the Allahābād University. Besides the Imperial Service regimental and the jail hospitals, one general hospital and two dispensaries for out-patients are maintained, while a hospital solely for females is under construction. The general hospital, named Bhagwān Dās, after a wealthy Seth of Churu, who provided the necessary funds for its construction, has accommodation for 70 in-patients, and is largely attended.

Five miles east of the city is the Devī Kūnd, the cremation tank of the chiefs of Bīkaner since the time of Jet Singh (1527–41). On the sides of this tank are ranged the cenotaphs of fourteen chiefs from Kalyān Singh to Dūngar Singh; several of them are fine buildings, with enamel work on the under surface of the domes. The material is red sandstone from Dalmera and marble from Makrāna (in Mārwār); on the latter are sculptured in bas-relief the mounted figure of each chief, while in front of him, standing in order of precedence, are the wives, and behind and below him the concubines, who mounted his funeral pile. The date, names of the dead, and in some cases a verse of Sanskrit are inscribed. The last distinguished *satī* in Bīkaner was a daughter of the Udaipur ruling family named Dīp Kunwar, the wife of Mahārājā Sūrat Singh's second son, Moti Singh, who died in 1825. Near the tank is a palace for the convenience of the chief and his

ladies when they have occasion to attend ceremonies here, while about half-way between Devī Kūnd and the city is a fine though modern temple dedicated to Siva, with a garden attached to it known as Siva bāri.

[Sodhi Hukm Singh, *Guide to Bīkaner and its Suburbs* (1891).]

Bīkāpur.—South-western *tahsīl* of Fyzābād District, United Provinces, comprising the *parganas* of Pachchhimrāth and Khandansa, and lying between 26° 24′ and 26° 43′ N. and 81° 41′ and 82° 21′ E., with an area of 467 square miles. Population increased from 288,893 in 1891 to 296,776 in 1901. There are 623 villages, but no town. The demand for land revenue in 1903–4 was Rs. 3,58,000, and for cesses Rs. 59,000. The density of population, 635 persons per square mile, is below the District average. Most of the *tahsīl* forms a fertile plain interrupted by many small patches of grass and *dhāk* jungle, and by *jhīls* or swamps, the drainage from which gradually collects into a channel called the Biswī. The Gumtī forms the south-western boundary for a little distance. In 1903–4 the area under cultivation was 287 square miles, of which 143 were irrigated. Wells and tanks or *jhīls* supply most of the irrigation in equal proportions.

Bikrampur.—*Pargana* or fiscal division in the Munshiganj subdivision of Dacca District, Eastern Bengal and Assam, famous as the seat of government under the Sen kings of Bengal, and especially of Ballāl Sen, who effected so many changes in the caste system of Bengal. It takes its name from Vikramāditya, who is reputed to have made his capital there, the site of which can still be traced in the modern village of RĀMPĀL. The *pargana* extends over the two police divisions of Munshiganj and Srīnagar. It contains several *tols* where logic, rhetoric, grammar, and astronomy are taught, and in Bengal ranks second only to Nabadwīp as a seat of Sanskrit learning. It supplies nearly a third of the subordinate native officials in the Government offices of Bengal.

Bilāra.—Head-quarters of the district of the same name in the State of Jodhpur, Rājputāna, situated in 26° 11′ N. and 73° 43′ E., on the left bank of a river called the Raipur Lūni (a tributary of the Lūni), about 45 miles east of Jodhpur city. Population (1901), 8,695. It takes its name from a traditional founder, Rājā Bāl, and is the seat of the spiritual head (styled *Dīwān*) of the Sīrvi community, a fact which adds greatly to its importance. The town is walled, and possesses a post office, a vernacular school, and a hospital. About 4 miles to the north is a fine tank, called the Jaswant Sāgar (after the late chief of Jodhpur), which is described in the article on the LŪNI river.

Bilāri.—South-eastern *tahsīl* of Morādābād District, United Provinces, conterminous with the *pargana* of the same name, lying between 28° 22′ and 28° 48′ N. and 78° 39′ and 78° 58′ E., with an area of 333 square miles. Population fell from 231,947 in 1891 to 216,340 in

1901. There are 387 villages and three towns, the largest of which are CHANDAUSĪ (population, 25,711) and Bilārī (4,766), the *tahsīl* headquarters. The demand for land revenue in 1903-4 was Rs. 3,38,000, and for cesses Rs. 57,000. The density of population, 650 persons per square mile, is considerably above the District average. Most of the *tahsīl* is a fertile level plain, richly wooded, and requiring artificial irrigation more than any other portion of the District. The Gāngan forms part of the northern boundary, and the Aril and Sot cross the centre and southern portions. Sugar-cane is the most profitable crop, but wheat covers the largest area. In 1902-3 the area under cultivation was 279 square miles, of which 34 were irrigated, mostly from wells.

Bilāspur District[1].—District in the Chhattīsgarh Division of the Central Provinces, lying between 21° 37′ and 23° 7′ N. and 81° 12′ and 83° 40′ E., with an area of 7,602 square miles. The District occupies the northern portion of the Chhattīsgarh plain or upper basin of the Mahānadī. It is bounded on the south by the open plains of Raipur; and on the east and south-east by the broken country comprised in the Raigarh and Sārangarh States, which divides the Chhattīsgarh and Sambalpur plains. To the north and west the lowlands are hemmed in by the hills constituting the eastern outer wall of the Sātpurās, known locally as the Maikala range. The area of the District was 8,341 square miles up to 1905, and it ranked third in the Province in point of size. A large part of it is held on *zamīndāri* tenure. The rugged peaks and dense forests, which alternating with small elevated plateaux stretch along the north of the District, and are divided among a number of *zamīndāri* estates, cover about 2,000 square miles, or 24 per cent. of the total area. South of these is an open undulating plain closely cultivated, and in the western portion wholly denuded of trees, which contains the majority of

Physical aspects.

[1] In 1906 the constitution of Bilāspur District was entirely altered by the formation of the new Drug District, to which a tract in the west of the Mungelī *tahsīl*, with an area of 363 square miles and a population of 83,650 persons, was transferred. At the same time part of the District lying south of the Mahānadī and the Tarengā estate, south of the Seonāth, were transferred to Raipur District, this area amounting to 706 square miles with a population of 99,402 persons. On the transfer of Sambalpur District to Bengal in 1905, the Chandarpur-Padampur and Mālkhurdā estates, with an area of 333 square miles and a population of 87,320 persons, were transferred to Bilāspur. The area of the reconstituted Bilāspur District is 7,602 square miles, and the population of this area in 1901 was 917,240 persons, compared with 1,045,096 in 1891. The density was 121 persons per square mile. The District contains three towns—BILĀSPUR, RATANPUR, and MUNGELĪ—and 3,258 inhabited villages. It includes 10 *zamīndāri* estates, with a total area of 4,236 square miles, of which 2,668 are forest. The approximate land revenue in 1902-3 on the area now constituting the District was 3·94 lakhs. This article refers almost throughout to Bilāspur District as it stood before its reconstitution.

the population, and practically all the wealth of the District; while in the small strip cut off by the Mahānadī on the southern border rising ground and patches of thick forest are again met with. The general inclination of the surface is from north-west to south-east; Bilāspur itself is 848 feet above the sea, and the level of the plain country decreases from about 1,000 feet in the west of the Mungelī *tahsīl* to 750 at the south-eastern extremity of the District. The Pendrā plateau is about 2,000 feet high, while several of the northern peaks have elevations approaching 2,500 feet, and the hill of AMARKANTAK, a few miles across the border of the Rewah State, rises to nearly 3,600 feet. The whole area of the District is included in the drainage system of the Mahānadī, but the river itself only flows near the southern border for a length of about 25 miles. The Seonāth crosses the southern portion of the Bilāspur *tahsīl*, cutting off the Tarengā estate, and joins the Mahānadī at Changorī. Among the tributaries of the Seonāth are the Maniāri, which divides the Bilāspur and Mungelī *tahsīls*, the Arpā and Kurung, which unite in the Arnā, and the Līlāgar, which separates Bilāspur from Jānjgīr. In the east the Hasdo enters the Mātin *zamīndāri* from the Surgujā hills, and, after a picturesque course over the rocky gorges of Mātin and Uprorā, flows through the plains of Chāmpa to the Mahānadī. The bed of the Hasdo is noted for its dangerous quicksands.

The plains are composed mainly of shales and limestones, with subordinate sandstones, belonging to the Lower Vindhyan series. The hills on the western side are formed of metamorphic and sub-metamorphic rocks or slates and quartzites, while those on the eastern and northern sides consist of gneiss and other rocks of the Gondwāna series. The Korbā coal-field is comprised in this District.

The forests of Bilāspur are largely made up of *sāl* (*Shorea robusta*), often, however, of a scrubby character. In the western parts of the District some teak is to be met with, but towards the east this species is comparatively rare. With the *sāl* are associated *sāj* (*Terminalia tomentosa*), *dhaurā* (*Anogeissus latifolia*), *tendū* (*Diospyros tomentosa*), and *shīsham* (*Dalbergia latifolia* and *D. lanceolaria*), while *karrā* (*Cleistanthus collinus*), *tinsā* (*Ougeinia dalbergioides*), *lendiā* (*Lagerstroemia parviflora*), and *bījāsāl* (*Pterocarpus Marsupium*) are also sometimes found, as well as various species of *Acacia* and *Albizzia*, *Butea frondosa*, *Adina cordifolia*, *Stephegyne*, *Elaeodendron*, *Schleichera trijuga*, *Soymida febrifuga*, *Boswellia serrata*, and various species of *Eugenia*. The undergrowth includes shrubs, such as *Flemingia*, *Woodfordia*, *Flueggea*, *Phyllanthus*, *Grewia*, *Zizyphus*, *Casearia*, *Clerodendron*, and *Vernonia*. The forest climbers are fairly numerous, the most conspicuous being species of *Spatholobus*, *Millettia*, *Combretum*, *Dalbergia volubilis*, and *Butea superba*. In river-beds the characteristic shrubs are *Homonoia*

riparia, *Tamarix ericoides*, and *Rhabdia viminalis*. There are occasional patches of bamboo, chiefly *Dendrocalamus strictus*.

Wild elephants were formerly found in the forests of Mātin and Uprorā in considerable numbers. They have now abandoned these tracts; but stray animals occasionally enter the District, and wander down as far as the Lormī forests when the crops are on the ground. A few buffaloes frequent the southern forests, and bison are met with in the Lormī Reserve. Wolves and swamp deer also occur, besides the usual game animals. There are a few antelope in the west of the District. All the usual game-birds are found, but duck and snipe are not common except in a few special localities. The demoiselle crane visits the Mahānadī in the cold season. The rivers are well supplied with numerous kinds of fish, which are a favourite article of food among nearly all classes and are also exported.

The climate resembles that of the other plain Districts of the Central Provinces. On the plateau of Pendrā in the north the temperature is some 4° lower on an average. Epidemics of cholera and small-pox occur about once in three years, and leprosy is more common here than in other parts of the Province.

The annual rainfall at Bilāspur town averages 50 inches. That of Mungelī is 5 inches less or 45, while at Jānjgīr it rises to 50½ inches.

History.

The traditions of Bilāspur go back to a very early age, and are connected with the history of the Haihaivansi Rājput kings of Ratanpur and Raipur. The earliest prince of this line is said to have been Mayūra Dhwaja, whose adventures with Krishna on the occasion of the theft of Arjun's horse are related in the *Jaiminiya Ashwamedha*. A genealogical table compiled from old documents professes to give a regular succession of kings down to the Marāthā conquest, but the dates are probably not reliable until the sixteenth century. The territories of the Haihaivansi kings comprised thirty-six *garhs* or forts, and the name Chhattīsgarh was, therefore, applied to them. To each of these forts a tract of country was attached, and they were held on feudal tenure by relatives or subordinate chiefs. Together they embraced the greater part of the modern Districts of Raipur and Bilāspur, and many of them survive in the present *zamīndāri* estates. On the accession of the twentieth Rājā, Sūrdeo, whose date is calculated to be A.D. 1000, the Chhattīsgarh country was divided into two sections; and that king's younger brother established his capital at Raipur with the southern portion of the kingdom under his control; remaining, however, in feudal subordination to the elder brother at Ratanpur. From this period the kingdom of Chhattīsgarh was divided between two ruling houses. In the time of Kalyān Sāhi, the forty-fourth Rājā, who is recorded as having reigned from 1536 to 1573, the influence of Muhammadan sovereignty first extended to

the landlocked and isolated region of Chhattīsgarh. This prince is said to have proceeded to Delhi, obtained audience of the emperor Akbar, and returned after eight years with a Muhammadan title. One of the revenue books of this period, which has been preserved, shows that the revenue of the Ratanpur territories including Raipur amounted to 9 lakhs of rupees, a figure which, considering the relative value of money, indicates a high degree of prosperity. The army maintained by Kalyān Sāhi consisted of 14,200 men, of whom 1,000 were cavalry, and 116 elephants. This force was probably employed almost solely for the maintenance of internal order, as Chhattīsgarh appears to have escaped any foreign attack up to the time of the Marāthās. In 1741 occurred the invasion of Chhattīsgarh by the Marāthā general Bhāskar Pant. The reigning Rājā, Raghunāth Singh, the last of the dynasty, was an old and feeble man who made no attempt to resist the Marāthās, and, on the army reaching the capital, it capitulated after a few rounds had been fired. Chhattīsgarh was conferred as an apanage on two cadets of the Bhonsla family of Nāgpur, and was governed by Marāthā *Sūbahs* or district officers until 1818. The administration of the Marāthās during this period was in the highest degree oppressive, being devoted solely to the object of extracting the maximum amount of revenue from the people. On the deposition of Appa Sāhib, the country came under the control of British officers while Sir Richard Jenkins was administering the Nāgpur territories on behalf of the minor Rājā; and the name of the Superintendent of Chhattīsgarh, Colonel Agnew, was long remembered with gratitude by all classes of the people for the justice, moderation, and wisdom with which his administration was conducted. At this period the capital was removed from Ratanpur to Raipur. On the termination of the Rājā's minority a period of Marāthā administration supervened until 1853, when Chhattīsgarh with the rest of the Nāgpur territories lapsed to the British Government. Bilāspur was constituted a separate District in 1861. During the Mutiny the *zamīndār* of the estate of Sonākhān, in the south-east of the District, raised a small force and defied the local authorities. He was taken prisoner and executed, and his estate was confiscated and sold to an English capitalist, whose representatives still own it.

The old town of RATANPUR, the seat of the Haihaivansi Rājput dynasty, is situated 16 miles north of Bilāspur town, and with it the history and archaeology of the District are indissolubly connected. The temples of Seorīnārāyan and Kharod in the south of the District date from the twelfth century, and contain inscriptions relating to the Ratanpur kings. At Jānjgīr are two interesting temples, profusely sculptured. Another beautifully sculptured temple is situated at Pāli. At Dhanpur, 5 miles from Pendrā, are extensive sculptural remains, many of which have been brought to Pendrā. There are ruins of

old forts at Kosgain, Kotgarh, Lāphāgarh, and Malhār. Amarkantak, about 12 miles from Pendrā across the Rewah border, is the source of the Narbadā, Son, and Johalā rivers. It forms the eastern peak of the Maikala range, and is a celebrated place of Hindu pilgrimage. Several temples have been erected here, but that known as the Kāma Mandira is the only one which possesses any architectural interest.

Population.

The population of the District at the last three enumerations was as follows: (1881) 1,017,327, (1891) 1,164,158, and (1901) 1,012,972. Between 1881 and 1891 the increase was 14½ per cent.; but the rise of over 24 per cent. in the figures for the *zamīndāris* was principally due to more accurate enumeration, and outside them the growth of population was nearly the same as the Provincial average. During the next decade Bilāspur suffered severely from famine. The District contains three towns—BILĀSPUR, MUNGELĪ, and RATANPUR—and 3,258 inhabited villages. Statistics of population of the reconstituted District, based on the Census of 1901, are shown in the following table:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Bilāspur . .	3,111	2	1,049	321,915	103	− 6.8	7,551
Mungelī . .	1,452	1	878	177,116	122	− 28.8	2,677
Jānjgīr . .	3,039	...	1,331	418,209	138	− 7.3	6,251
District total	7,602	3	3,258	917,240	121	− 12.2	16,479

The average density is 121 persons per square mile, but it varies greatly in different tracts. About 93 per cent. of the population speak the Chhattīsgarhī dialect of Eastern Hindī, and 6 per cent. the Baghelī dialect, which is also found in Jubbulpore and Rewah. The forest tribes are nearly all returned as having abandoned their own language and adopted Hindī. About 90 per cent. of the population are Hindus and 8 per cent. Animists. More than 12,000 are Muhammadans. The Satnāmi and Kabīrpanthī sects are strongly represented in Bilāspur, there being 117,476 adherents of the former and 99,268 of the latter. The original head-quarters of the latter sect were at Kawardhā; but there has now been a schism, and one of the *mahants*, Ugranām Sāhib, lives at Kudarmāl in Bilāspur, where an annual fair attended by members of the sect is held. The caste known as Pankā consists of Gāndas who have adopted Kabīrpanthism. The head-quarters of the Satnāmi sect are now in Raipur; but it was to the Sonākhān forests

that Ghāsīdās, the founder of the sect, retired between 1820 and 1830, and from Girod in the same tract he proclaimed his revelation on emerging from his six months' solitary communing. The Satnāmis are nearly all Chamārs.

The two castes which are numerically most important are Chamārs (210,000), who constitute 21 per cent. of the population, and Gonds (143,000) 14 per cent. Other fairly numerous castes are Ahīrs or Rāwats (90,000), Kurmīs (54,000), and Kawars (42,000). The proprietors of eight of the *zamīndāri* estates belong to the Tawar sub-caste of the Kawar tribe. The *zamīndār* of Bhatgaon is a Binjhiā, and those of Pandariā, Kantelī, and Bilaigarh-Katgī are Rāj Gonds. Outside the *zamīndāris*, the principal castes of proprietors are Brāhmans, Baniās, and Kurmīs. The best cultivators are the Chandnāhu Kurmīs, but their stinginess is proverbial. Chamārs own some villages, but are idle and slovenly cultivators. In addition to the Kawars and Gonds, there are several minor forest tribes, such as the Bhainās, Dhanwars, and Khairwārs, most of whom are found in small numbers. The Dhanwars are very backward and live by hunting and snaring. The hills to the north of Pandariā also contain a few Baigās, who subsist principally on forest produce and game. About 84 per cent. of the population of the District were returned in 1901 as supported by agriculture.

Christians number 2,292, of whom 2,030 are natives. The majority belong to the German and Evangelical Churches, while there are over 200 Roman Catholics. The District contains a number of mission stations, the principal centres being Bilāspur, Mungelī, and Chāndkhurī.

Agriculture.

Black cotton soil or *kanhār* covers two-thirds of the area of the Mungelī *tahsīl*, nearly a quarter of that of Bilāspur excluding the *zamīndāris*, and is found in patches elsewhere. The remaining area consists of the brown or yellow clays called *dorsā* and *matāsi*, each of which extends over about 30 per cent. of the *mālguzāri* portion of the District. Rice is the staple crop and is practically always sown broadcast, while for thinning the plants and taking out weeds the system of *biāsi*, or ploughing up the plants when they are a few inches high, is resorted to. This is a slovenly method, and the results compare very unfavourably with those obtained from transplantation. Manure is kept almost entirely for rice, with the exception of the small quantity required for sugar-cane and garden crops. Second crops are grown on the superior black and brown soils, the method pursued being to sow the pulses (*urad*, peas, lentils, *tiurā*) and sometimes linseed in rice-fields, either among the standing rice, or less frequently after the crop has been cut and while the fields are still damp.

Of the total area of the District, 56 per cent. is included in the

10 *zamīndāri* estates, 2,500 acres have been allotted on the *ryotwāri* system, and 64 square miles are held wholly or partially free of revenue. The remainder is held on the ordinary *mālguzāri* tenure. In 1903–4 the classification showed 626 square miles, or 9 per cent., as included in Government forest; 432 square miles, or 6 per cent., as not available for cultivation; and 2,616 square miles, or 38½ per cent., as cultivable waste other than fallow[1]. The remaining area, amounting to 3,120 square miles, or 51 per cent. of the total available, is occupied for cultivation. Except in one or two special tracts there is little or no scope for further extension of cultivation in the *mālguzāri* area, but in the *zamīndāris* only about a quarter of the whole has yet been broken up. They probably include, however, considerable tracts of permanently uncultivable land. Rice covers 1,496 square miles, *kodon* 468, wheat 193, linseed 234, and the pulses (*urad*, *mūng*, and *moth*) 182 square miles. The recent unfavourable seasons, besides causing a decrease in the total area under crop of about 45 square miles, have further brought about to some extent a substitution of the light millet *kodon* for the more valuable staples wheat and rice. Wheat is grown in the unembanked black-soil fields of the Mungelī *tahsīl*. Only about 2,500 acres are at present occupied by sugar-cane, as against more than 5,000 at the time of settlement (1886–9).

During the twenty years between 1868 and 1888 the cropped area increased by 39 per cent., and a further increase of 44 per cent. had taken place by 1903–4. The system of cultivation has hitherto been very slovenly; but with the great rise in the prices of grain, better methods are being introduced, and the advantages of manure and irrigation are appreciated. Thirty years ago second crops were raised on only a very small area, but in recent years as much as 400,000 acres have been double cropped. During the ten years ending 1904, 1·58 lakhs was advanced under the Land Improvement Loans Act and nearly 9 lakhs under the Agriculturists' Loans Act.

The local breed of cattle is very poor, and no care is exercised in breeding. Buffaloes are largely used for the more laborious work of cultivation. They are imported from the northern Districts, and come in herds along the road from Jubbulpore and Mandlā. Buffaloes are kept only by the better class of tenants, and used in conjunction with bullocks, as they do not work well in the dry season. A few small ponies are bred in the District, being kept by well-to-do landowners for riding. The use of carts is as yet very uncommon, and most people travel on foot. Goats and sheep are bred for food, and the latter also for their wool; but the supply is insufficient for local requirements, country blankets being imported from Cawnpore.

[1] These statistics include 1,548 square miles of waste land in the *zamīndāris* which have not been cadastrally surveyed.

Irrigation is not a regular feature of the local agriculture. The District now contains more than 7,000 tanks, but the large majority of these were not constructed for irrigation, but to hold water for drinking. The tanks are usually embanked on all sides, and the bed is dug out below the level of the ground. In a year of ordinary rainfall the irrigated area would not, until recently, have amounted to more than 5,000 acres. A large number of new tanks have, however, been constructed during the famines, by means of loans or Government grants of money, and these have been made principally with a view to irrigation. In 1903–4 the irrigated area amounted to only 3,000 acres; but in the previous year more than 113 square miles had been irrigated, and provided that there is sufficient rainfall to fill the tanks, this area may now be considered capable of being protected. Schemes for the construction of tanks to protect 140 square miles more have been prepared by the Irrigation department, and most of them are expected to be remunerative. The District has also about 2,400 wells, which irrigate about 1,000 acres of good garden crops and sugar-cane.

Forests.

Government forests cover 626 square miles, or 9 per cent. of the total area. The most important Reserves are those of Lormī in the north-west and Sonākhān in the south-east. *Sāl* (*Shorea robusta*) is the chief timber tree, and teak is found in small quantities in the Sonākhān range. Other species are *bījāsāl* (*Pterocarpus Marsupium*), *sāj* (*Terminalia tomentosa*), and *karrā* (*Cleistanthus collinus*). Of a total forest revenue in 1903–4 of Rs. 21,000, about Rs. 6,600 was realized from bamboos, Rs. 3,600 from grazing and fodder grass, and nearly Rs. 2,900 from minor forest produce. The sales of timber are thus very small; and this is due to the competition of the extensive *zamīndāri* forests, the produce of which is sold at a cheap rate and with little restriction on fellings. From statistics obtained from railway stations it appears that in 1901 more than 11,000 tons of timber were exported from these forests, of which about two-thirds consisted of railway sleepers.

No mines are at present worked in the District; but prospecting licences for coal over the area of the Korbā and Chhurī *zamīndāris* have been granted to European firms, and it is believed that the Korbā seams, whose existence has long been known, can be worked at a profit. Iron ores exist in Korbā and Lāpha. The iron is smelted by native methods, and is used for the manufacture of agricultural implements. The Jonk river, which passes through the Sonākhān estate, has auriferous sands; and the original purchaser of the estate prospected for gold, but found no veins which would yield a profit, though gold is obtained in minute quantities by Sonjharās or native gold-washers. Traces of copper have been observed in the north of Lormī and at Ratanpur. Mica in small slabs is found in Pendrā; and a mine was

started by a European company in the year 1896, but the experiment proved a failure owing to the sheets being too small and brittle. Limestones occur in abundance, and slates found near Seorīnārāyan are used in the local schools. Red and white clays occur in places.

Trade and communications.

The *tasar* silk of Bilāspur is the best in the Central Provinces. Silkworms are bred by Gāndas and Kewats, and the thread is woven by Koshtās. The breeding industry was in danger of extinction a few years ago; but some plots of Government forest have now been set apart for this purpose, and it shows a tendency to revive. The supply of cocoons is, however, insufficient for local requirements, and they are imported from Chotā Nāgpur. The principal centres are Balodā, Khokrā, Chāmpa, Chhurī, and Bilāspur town. *Tasar* cloth is exported in small quantities to all parts of India. Cotton-weaving is carried on in many of the large villages, the finest cloth being produced at Bamnīdīhi and Kamod. A little home-spun thread is still utilized for the thicker kinds of cloth which are required to keep out rain, but otherwise mill-spun thread is solely employed. Cotton cloths with borders of *tasar* silk are also woven. There is no separate dyeing industry, but the Koshtās themselves dye their thread before weaving it. Bell-metal vessels are made at Ratanpur and Chāmpa; but the supply is quite insufficient for local requirements, and they are largely imported from Mandlā, Bhandāra, and Northern India. Catechu is prepared by the caste of Khairwārs in several of the *zamīndāris*. A match factory was established at Kotā in 1902. The capital invested is about a lakh of rupees, and nearly 200 workers are employed.

Rice is the staple export, being sent to Bombay, and also to Berār and Northern India. The other agricultural products exported are wheat, *til*, linseed, and mustard. *Sāl* and *bījāsāl* timber is exported, sleepers being sent to Calcutta, and logs and poles for building to the United Provinces. A considerable quantity of lac is sent to Mirzāpur and Calcutta, very little being used locally. Myrabolams, *bagai* or *bhābar* grass (*Pollinia eriopoda*) for the manufacture of paper, *tīkhur* or arrowroot, *chironjī* (the fruit of *Buchanania latifolia*), and gum are other articles of forest produce which are exported. As in other parts of the Province, a brisk trade has recently sprung up in the slaughter of cattle, and the export of dried meat, hides, and horns. A certain amount of salt is still brought from Ganjām by pack-bullocks, but most comes by rail from Bombay. Gram and *ghī* are imported from the northern Districts for local consumption, and tobacco from Madras and Bengal. A large number of weekly bazars or markets are held, the most important being those of Bamnīdīhi, Bilāspur, Ganiāri, Balodā, Takhatpur, and Chāmpa. Pāli in the Lāpha *zamīndāri* and Sohāgpur in Korbā are markets for the sale of country iron and bamboo matting

A certain amount of trade in grain and domestic utensils takes place at the annual fair of Kudarmāl.

The direct line of the Bengal-Nāgpur Railway from Bombay to Calcutta passes through the centre of the District, with nine stations and a length of 85 miles within its limits. From Bilāspur station a branch line runs north to Katnī, with six stations and a length of 74 miles in the District. All the trade of Bilāspur is now concentrated on the railway, and the old roads to Jubbulpore, Raipur, and Sambalpur have become of very slight importance. Bhātāpāra is the chief station for exports, and the Mungelī-Bhātāpāra road is an important feeder. Bilāspur town is the chief station for imports, but exports only pass through it from the adjacent tracts. It is connected by a metalled road with Mungelī, and by gravelled roads with Seorīnārāyan, Raipur, and Ratanpur. Akaltarā and Chāmpa are the principal stations for the eastern part of the District. The feeder-roads are those from Akaltarā to Balodā and Pāmgarh, and from Chāmpa to Bamnīdīhi. The northern *zamīndāris* are still very badly provided with roads passable for carts; and, with the exception of timber, produce is generally transported on pack-bullocks. The total length of metalled roads in the District is 27 miles, and of unmetalled roads 275 miles; and the annual expenditure on maintenance is Rs. 38,000. The Public Works department is in charge of 256 miles of road and the District council of 45 miles. There are avenues of trees on 280 miles.

Famine.

Bilāspur District has frequently suffered from failure of crops. Information about any except the recent famines is meagre, but distress is recorded in the years 1828–9, 1834–5, and 1845–6. In 1868–9 the rains failed almost as completely as in 1899–1900, and there was severe distress, accompanied by migration and desertion of villages. Relief works were opened by Government, but great difficulty was found in inducing the people to take advantage of them. The famine of 1868–9 was followed by a period of twenty-five years of prosperity; but in 1895 there was a very poor harvest, followed in 1896 by a complete failure of crops, and severe famine prevailed throughout the year 1897. Nearly 13 per cent. of the population were on relief in September, and the mortality rose temporarily to a rate of 153 per 1,000 per annum. The total expenditure was nearly 20 lakhs. The famine of 1897 was followed by two favourable years; but in 1899 the monsoon failed completely, and the rice crop was wholly destroyed. Relief operations commenced in the autumn of 1899 and lasted till the autumn of 1900. In May, 1900, nearly 300,000 persons, or 24 per cent. of the whole population, were on relief. Owing to the complete and timely organization of relief measures, the mortality was not severe. The total expenditure was 48¼ lakhs.

The Deputy-Commissioner has a staff of four Assistant or Extra-Assistant Commissioners. For administrative purposes the District is divided into three *tahsils*, each of which has a *tahsildār* and a *naib-tahsildār*. The Forest officer belongs to the Provincial service.

Administration.

The civil judicial staff consists of a District and one Subordinate Judge, and a Munsif at each *tahsil*. The Divisional and Sessions Judge of the Chhattisgarh Division has jurisdiction in the District. Magisterial powers have been granted to five of the *zamīndārs*, and the proprietor of the Chandarpur estate has civil powers. Cattle-theft and cattle-poisoning by Chamārs for the sake of the hides are common forms of crime. Suits for grain bonds and parol debts at heavy interest are noticeable features of the civil litigation.

When the management of Bilāspur District was undertaken by the British Government in 1818, it had been under Marāthā rule for about sixty years, and the condition of the people had steadily deteriorated owing to their extortionate system of government. During the ensuing twelve years of the temporary British administration, the system of annual settlements prevailing under the Marāthās was continued, and the revenue rose from Rs. 96,000 in 1818 to Rs. 99,000 in 1830. From 1830 to 1853 it continued to increase under the Marāthā government; and in the latter year, when the District lapsed to the British, it amounted to Rs. 1,47,000. Triennial settlements were then made, followed by the twenty years' settlement of 1868, when proprietary rights were conferred on the local headmen (*mālguzārs*) and the revenue was fixed at 2·85 lakhs, which was equivalent to an enhancement of 66 per cent. on the *mālguzāri* area. The next settlement was made in 1886–90 for a period of eleven or twelve years. Since the preceding revision cultivation had expanded by 40 per cent., and the income of the landholders had nearly doubled. The demand was enhanced by 81 per cent. in the *mālguzāri* area. A fresh regular settlement was commenced in 1898, but was postponed till 1904 owing to the deterioration caused by the famines. Some reductions have been made in the tracts most affected, and the revenue now stands at 5·28 lakhs. The average rental incidence at the last regular settlement for the fully assessed area was R. 0–9–9 per acre (maximum R. 0–15–5, minimum R. 0–7–1), the corresponding figure of revenue incidence being R. 0–5–6 (maximum R. 0–9–4, minimum R. 0–4–0).

The collections of land and total revenue in recent years are shown below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	2,81	5,25	4,76	5,12
Total revenue . .	4,64	8,57	7,34	8,35

The management of local affairs outside the Bilāspur municipality is entrusted to a District council and four local boards, one for each of the three *tahsīls* and a fourth for the northern *samīndāri* estates of the Bilāspur *tahsīl*. The income of the District council in 1903–4 was Rs. 74,000; and the expenditure on education was Rs. 35,000 and on public works Rs. 17,000.

The District Superintendent of police has a force of 505 officers and men, including 3 mounted constables, besides 3,415 watchmen for 3,258 inhabited towns and villages. The District jail contains accommodation for 193 prisoners, including 18 females, and the daily average number of prisoners in 1904 was 140.

In respect of education Bilāspur stands last but one among the Districts of the Province, only 3·8 per cent. of the male population being able to read and write in 1901 and only 502 women. Statistics of the number of pupils under instruction are as follows: (1880–1) 4,202, (1890–1) 5,833, (1900–1) 8,594, and (1903–4) 12,351, including 1,012 girls. The educational institutions comprise 3 English middle, 11 vernacular middle, and 142 primary schools. The municipal English middle school at Bilāspur town was raised to the standard of a high school in 1904. The District has also 11 girls' schools, of which 6 are maintained by Government, 4 from mission funds, and one by a *zamīndār*. The girls' school at Bilāspur town teaches up to the middle standard. The total expenditure on education in 1903–4 was Rs. 61,000, of which Rs. 43,000 was derived from Provincial and Local funds and Rs. 6,800 from fees.

The District contains 8 dispensaries, with accommodation for 95 in-patients. In 1904 the number of cases treated was 68,840, of whom 1,111 were in-patients, and 1,155 operations were performed. The expenditure was Rs. 13,000. The dispensaries at Pendrā and Pandariā were constructed, and are partly supported, from the funds of *zamīndāri* estates. Bilāspur town has a veterinary dispensary.

Vaccination is compulsory only in the municipal town of Bilāspur. The percentage of successful vaccinations in 1903–4 was 34 per 1,000 of population.

[Rai Bahādur Purshotam Dās, *Settlement Report* (1891). A District Gazetteer is being compiled.]

Bilāspur Tahsīl.—Central *tahsīl* of the District of the same name, Central Provinces, lying between 21° 43′ and 23° 7′ N. and 81° 44′ and 82° 40′ E. In 1901 its area was 5,080 square miles, and the population was 472,682. On the formation of the new Drug District, it was considerably reduced in size. The Tarengā estate lying south of the Seonāth river was transferred to the Balodā Bāzār *tahsīl* of Raipur, and three northern *zamīndāris* of Korbā, Chhurī, and Uprorā to the Jānjgīr *tahsīl* of Bilāspur. The revised area of the Bilāspur *tahsīl* is

3,111 square miles, and its population 321,915 persons, compared with 345,332 in 1891. The density is 103 persons per square mile, being 202 in the *khālsa* or ordinary proprietary tract and 47 in the *zamīndāris*. The *tahsīl* contains two towns, BILĀSPUR (population, 18,937), the District and *tahsīl* head-quarters, and RATANPUR (5,479); and 1,049 inhabited villages. About 96 square miles of Government forest are included in the *tahsīl*. It contains the *zamīndāri* estates of Pendrā, Kendā Laphā, and Mātin, with a total area of 1,976 square miles and a population of 92,394. Tree and scrub forest occupy 1,659 square miles in the *zamīndāris*. The land revenue demand in 1902–3 on the area now constituting the *tahsīl* was approximately 1·34 lakhs. The *tahsīl* consists of an open plain to the south, mainly producing rice, and an expanse of hill and forest comprised in the *zamīndāri* estates to the north.

Bilāspur Town.—Head-quarters of the District of the same name, Central Provinces, situated in 22° 5′ N. and 82° 10′ E., near the Bengal-Nāgpur Railway, 776 miles from Bombay and 445 from Calcutta. The town is said to be named after one Bilāsa, a fisherwoman, and for a long period it consisted only of a few fishermen's huts. A branch line of 198 miles leads to Katnī junction on the East Indian Railway. The town stands on the river Arpā, 3 miles from the railway station. Population (1901), 18,937. Bilāspur is the eighth largest town in the Province, and is rapidly increasing in importance. Its population has almost quadrupled since 1872. A municipality was constituted in 1867. The municipal receipts during the decade ending 1901 averaged Rs. 33,000. In 1903–4 the income was Rs. 39,000, derived principally from octroi. Bilāspur is the leading station in the District for the distribution of imports, but it ranks after Bhātāpāra and Akaltarā as a collecting centre. Its trade is principally with Bombay. The weaving of *tasar* silk and cotton cloth are the principal industries. Bilāspur is the head-quarters in the Central Provinces of the cooly-recruiting Agency for Assam. It contains, besides the usual District officers, a number of railway servants and is the head-quarters of a company of volunteers. The educational institutions comprise a high school, a school for the children of European railway servants, and various branch schools. The town possesses four dispensaries, including railway and police hospitals, and a veterinary dispensary. A station of the Foreign Christian Missionary Society of America (unsectarian) was opened in 1885. A church has been built and the mission supports an orphanage for girls, boarding and day schools for boys, and a dispensary.

Bilāspur State (or Kahlūr).—One of the Simla Hill States, Punjab, lying between 31° 12′ and 31° 35′ N. and 76° 28′ and 76° 58′ E., with an area of 448 square miles. Population (1901), 90,873. The State

contains one town and 421 villages. The Gurkhas, who had overrun the country at the beginning of the nineteenth century, were driven out by the British in 1815, and the Rājā reinstated in his possessions. In 1847–8, when the Punjab was conquered, the Rājā was confirmed in his possession of the State, including part of a tract on the right bank of the Sutlej, which he had previously held on payment of tribute to the Sikhs. The British Government waived its right to tribute, but required the Rājā to abolish transit duties in his dominions. About 1865 the *pargana* of Bassi Bachertu was given up to the Rājā, on condition of an annual payment of Rs. 8,000 to the British Government. In acknowledgement of his services during the Mutiny, the Rājā received a dress of honour of the value of Rs. 5,000, and a salute of 7 guns, since increased to 11 guns. Bije Chand, the present Rājā, succeeded in 1889; but in 1903–4 he was deprived, for a time, of his administrative powers, and the State is now managed by a British official. The military force of the State consists of 11 cavalry, 187 infantry (including gunners and police), and 2 field guns. The revenue is about Rs. 1,57,000; and the principal products are grain, opium, tobacco, and ginger.

Bilāspur Town.—Capital of the Kahlūr or Bilāspur State, Punjab, and residence of the Rājā, situated in 31° 19′ N. and 76° 50′ E., on the left bank of the Sutlej, 1,465 feet above sea-level. Population (1901), 3,192. The place suffered much in the early part of the nineteenth century from the depredations of the Gurkhas. It now contains a number of well-built stone houses, a bazar, the neat but unpretentious palace of the Rājā, a dispensary, and a school. A ferry across the Sutlej, 2 miles above the town, forms the chief communication with the Punjab proper.

Bilāspur Tahsīl.—North-eastern *tahsīl* in the State of Rāmpur, United Provinces, lying between 28° 44′ and 29° 1′ N. and 79° 10′ and 79° 26′ E., with an area of 204 square miles. Population (1901), 73,450. There are 223 villages and one town, Bilāspur (population, 4,448), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 3,08,000, and for cesses Rs. 49,000. The density of population, 360 persons per square mile, is the lowest in the State. The *tahsīl* lies in the damp submontane tract and is intersected by many streams, some of which supply small canals. In 1903–4 the area under cultivation was 69 square miles, of which 37 were irrigated.

Bilaud.—*Thakurāt* in the Mālwā Agency, Central India.

Bilbāri.—Petty State in the Dāngs, Bombay.

Bildi.—Petty State in Kāthiāwār, Bombay.

Bilgrām Tahsīl.—South-western *tahsīl* of Hardoī District, United Provinces, comprising the *parganas* of Bilgrām, Sāndī, Katiyārī, Mallānwān, and Kachhandau, and lying between 26° 56′ and 27° 27′ N.

and 79° 41′ and 80° 18′ E., with an area of 596 square miles. Population increased from 281,747 in 1891 to 293,948 in 1901. There are 485 villages and four towns: BILGRĀM (population, 11,190), the *tahsīl* head-quarters, MALLĀNWĀN (11,158), SĀNDĪ (9,072), and Mādhoganj (3,594). The demand for land revenue in 1903–4 was Rs. 4,24,000, and for cesses Rs. 70,000. The density of population, 493 persons per square mile, is the highest in the District, and this is the only *tahsīl* of Hardoī which showed an appreciable increase between 1891 and 1901. On the south-west the *tahsīl* is bounded by the Ganges, which is joined by the Rāmgangā, the Garrā meeting the lower river close to the confluence. A large portion of the west and south-west lies in the alluvial lowlands. In 1903–4 the area under cultivation was 402 square miles, of which 92 were irrigated. Wells supply nearly three-quarters of the irrigated area, and tanks and small streams the remainder.

Bilgrām Town.—Head-quarters of the *tahsīl* of the same name, Hardoī District, United Provinces, situated in 27° 11′ N. and 80° 2′ E., at the termination of a metalled road from Hardoī town. Population (1901), 11,190. Tradition states that this place was held by the Thatherās. These were expelled by the Raikwārs under Rājā Srī Rām, who founded a town which he named after himself, Srīnagar. The Raikwārs in their turn were ousted by the Muhammadans about 1217. A Muhammadan saint, whose tomb is the oldest in the place, is said to have slain a demon, named Bil, by his enchantments, and the name of the town was changed to Bilgrām. The Hindus have a similar tradition, in which the exploit is attributed to Balarāma, brother of Krishna. The place is built on and around a lofty bluff, and in the older part of it many fragments of carved stone bas-reliefs, pillars, and capitals of old Hindu columns are found. Numerous mosques and *dargāhs* adorn Bilgrām, some of them dating from the thirteenth century. Bilgrām is administered under Act XX of 1856, with an income of about Rs. 3,600. Its trade has declined, but there is still some traffic with Hardoī and Mādhoganj; and cloth, glazed pottery, carved doors and lintels, shoes, and brass-ware are produced. The town contains a dispensary, a *munsifī*, a branch of the American Methodist Mission, and two schools with 158 pupils. It has produced a number of Muhammadans who have attained distinction as officials or in literature.

Bilhaur Tahsīl.—Northern *tahsīl* of Cawnpore District, United Provinces, conterminous with the *pargana* of the same name, lying between 26° 31′ and 26° 58′ N. and 79° 40′ and 80° 8′ E., with an area of 345 square miles. Population fell from 157,593 in 1891 to 156,261 in 1901. There are 245 villages and one town, BILHAUR (population, 5,143), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 3,00,000, and for cesses Rs. 48,000. The density of population, 453 persons per square mile, is below the District average.

The Ganges forms the north-eastern boundary, and the *tahsīl* is crossed by the Isan and Pāndū, while the Rind flows along the southern side. Near the Isan the soil is light and sandy, but it improves near the Pāndū, and a fertile red soil is found along the Rind. Many swamps in the centre of the *tahsīl* are used for irrigating about 10 square miles in ordinary years. In 1903-4 the area under cultivation was 163 square miles, of which 76 were irrigated. The Cawnpore branch of the Lower Ganges Canal is the most important source of irrigation, but wells supply nearly as large an area.

Bilhaur Town.—Head-quarters of the *tahsīl* of the same name in Cawnpore District, United Provinces, situated in 26° 50′ N. and 80° 4′ E., on the grand trunk road, and on the Cawnpore-Achhnerā Railway. Population (1901), 5,143. The town contains a *tahsīli* and a dispensary, and is administered under Act XX of 1856, with an income of about Rs. 1,100. The *tahsīli* school has about 100 scholars.

Biligiri-Rangan Hills.—A range in Southern India which originates (12° 27′ N. and 76° 11′ E.) in the south-east of Mysore District, Mysore State, and, after running north and south for nearly 10 miles, passes into the Coimbatore District of Madras. The peak from which the range is named is 5,091 feet high, with an old temple of Biligiri Ranga at the top. The slopes are well wooded, teak and sandal-wood being found among the trees; and long grass, often 10 to 18 feet high, grows everywhere. The only inhabitants are the wild aboriginal Sholigas, who live in isolated hamlets containing five or six wattled huts. Elephants, bison, and *sāmbar* are found, and occasionally tigers, leopards, and bears.

Bilimora.—Town in the Gandevi *tāluka* of the Navsāri *prānt*, Baroda State, situated in 20° 46′ and 73° 0′ E., on the Bombay, Baroda, and Central India Railway, 13 miles distant from Navsāri, and 135 miles from Bombay. Population (1901), 4,693. The town is built on the bank of the Ambikā river, and a moderate trade is carried on in grain, molasses, castor-oil, fuel, and timber, by both rail and sea. Works are now being constructed to improve the port. It possesses a dispensary, Anglo-vernacular and vernacular schools, and local offices. The municipality has an income of Rs. 1,300, derived from a grant by the State. Factories for the manufacture of chocolate on a large scale and rice-milling have been erected here. Work in sandal-wood and ivory is carried on by a local firm.

Bilin.—Township in the Thaton District of Lower Burma, on the eastern coast of the Gulf of Martaban, lying between 16° 57′ and 17° 42′ N. and 97° 0′ and 97° 32′ E., with an area of 937 square miles. It consists for the most part of an alluvial plain, stretching from the hills in the north to the sea. It contains 224 villages, and the popula-

tion, which was 48,524 in 1891, had risen by 1901 to 55,112. The head-quarters are at Bilin, a village of 2,610 inhabitants, on the right bank of the Bilin river. The township is famous for its sugar-cane, which is grown in considerable quantities on the rich well-watered lowlands. The area cultivated in 1903–4 was 123 square miles, paying Rs. 1,74,100 land revenue.

Billesvara Betta.—Sacred hill in the Nagar *tāluk* of Shimoga District, Mysore State, situated in about 13° 48′ N. and 75° 19′ E. It is the source of several streams, two running north-west to the Sharāvati, one north to the Tungabhadra, and one south to the Tunga.

Biloli.—South-eastern *tāluk* of Nānder District, Hyderābād State, with an area of 269 square miles. The population in 1901, including *jāgīrs*, was 54,925, compared with 56,170 in 1901, the decrease being due to the famine of 1900. The *tāluk* till recently contained 118 villages, of which 33 are *jāgīr*, and Biloli (population, 2,926) is the head-quarters. The Godāvari river flows north of it and the Mānjra to the east, the latter separating it from Nizāmābād District. The land revenue in 1901 was 1·6 lakhs. It is composed of alluvial and *regar* soils. In 1905 Biloli was enlarged by the addition of some villages from Osmānnagar.

Bilsī.—Town in the Sahaswān *tahsīl* of Budaun District, United Provinces, situated in 28° 8′ N. and 78° 55′ E., 16 miles west of Budaun town. Population (1901), 6,035. The town was founded towards the close of the eighteenth century, and owes its name to one Bilāsī Singh. In the first half of the nineteenth century the new road system gave great advantages to Bilsī, which became the second trading centre in the neighbourhood. The railway, however, passed Bilsī at a distance of 20 miles and it has lost its trade, while its prosperity has further decreased owing to the decline in indigo, which was largely manufactured here. From 1884 to 1904 Bilsī was administered as a municipality, with an income and expenditure of about Rs. 3,000. In 1904 it was reduced to the position of a 'notified area.' The town contains a primary school with 94 pupils and a small girls' school, besides a dispensary and a branch of the American Methodist Mission.

Bilugyun.—Island at the mouth of the Salween river in Lower Burma, south-west of the town of Moulmein, lying between 16° 14′ and 16° 31′ N. and 97° 27′ and 97° 38′ E., with an area of 190 square miles. Its length north and south is 20 miles, and its width east and west rather less than 10. It constituted, in 1901, the Bilugyun township of Amherst District, and then had a population of 41,880, compared with 34,056 in 1891. The density is 220 persons per square mile, which is high for Burma. The centre of the island is occupied by a range of wooded hills but the greater part consists of alluvial plains.

The inhabitants are mainly Talaings, but about one-quarter of the population is Burman, and there is a fair proportion of Karens. Bilugyun means 'the island of *bilus*' or ogres. The island now forms the township of Chaungzon, the head-quarters of which are at Chaungzon (population, 1,112), situated in the centre of the island.

Bimgal.—Former *tāluk* in Nizāmābād (Indūr) District, Hyderābād State. *See* ARMŪR.

Bimlipatam Tahsīl.—Coast *tahsīl* in Vizagapatam District, Madras, lying between 17° 50′ and 18° 6′ N. and 83° 12′ and 83° 37′ E., with an area of 207 square miles. The population in 1901 was 126,354, compared with 114,834 in 1891. The *tahsīl* contains one town, BIMLIPATAM (population, 10,212), the head-quarters, and 117 villages. The demand for land revenue and cesses in 1903–4 was Rs. 8,805. This is a densely populated *tahsīl*, which is entirely *zamīndāri* land belonging to the VIZIANAGRAM ESTATE.

Bimlipatam Town.—Head-quarters of the *tahsīl* of the same name in Vizagapatam District, Madras, situated in 17° 54′ N. and 83° 27′ E., on the coast about 18 miles north-east of Vizagapatam town. The population (1901), 10,212, has advanced but little in recent years. A factory was established here in the seventeenth century by the Dutch, but it plays no part in history. It was sacked by the Marāthā hordes of Jafar Alī in 1754, but otherwise remained in the peaceful possession of the Dutch till 1825, when it was ceded by treaty to the East India Company. Till 1846 Bimlipatam remained a mere fishing village, but in that year it began to attract European capital and enterprise. It now forms a regular place of call for coasting steamers, and ranks as one of the chief ports on the east coast. The maritime trade has, however, been affected by the completion of the railway between Madras and Calcutta. During the five years ending 1903–4 the value of the seaborne imports averaged 8 lakhs and of the exports 32 lakhs. The chief exports are gingelly and gingelly oil, hides and skins, seeds, jute, indigo, and myrabolams; the principal imports are cotton twist and yarn, and piece-goods. Though an open roadstead, the port is fairly well protected by the Uppada and Sugar-loaf headlands. The town is governed by a municipal council of twelve members, created in 1866. During the ten years ending 1902–3 the income and expenditure averaged Rs. 14,000. In 1903–4 the income was Rs. 17,000, derived chiefly from taxes on houses and land, tolls, and school fees. The usual *tahsīl* staff is stationed here; and in addition several European merchants and others connected with the trade of the town reside either here or at Chittivalsa (3 miles distant), where a jute and gunny-bag factory has been established.

Bina.—Railway junction in the Khurai *tahsīl* of Saugor District,

Central Provinces, situated in 24° 12′ N. and 78° 14′ E., 2 miles from the town of Etāwa. Population (1901), 1,826. The main line of the Indian Midland section of the Great Indian Peninsula Railway from Itārsi to Cawnpore and Agra passes Bīna, and is connected here with Katnī junction on the East Indian Railway by a branch line through Saugor and Damoh. Another branch line has been constructed from Bīna to Gūnā and Bāran. Bīna is 607 miles from Bombay and 806 miles from Calcutta. A number of railway officials reside here and form a company of volunteers.

Bindhāchal.—Town and shrine included in MIRZĀPUR CITY, United Provinces.

Bindkī.—Town in the Khajuhā *tahsīl* of Fatehpur District, United Provinces, situated in 26° 3′ N. and 80° 36′ E., 5 miles from the Mauhār or Bindkī Road railway station on the East Indian Railway. Population (1901), 7,728. The town has now become the most important trading centre between Cawnpore and Allahābād, and attracts a great deal of trade from Bundelkhand. Grain, *ghī*, and cattle are the chief articles of commerce. Bindkī is administered under Act XX of 1856, with an income of about Rs. 1,500 from taxation and Rs. 2,500 from rents. There is a flourishing town school with 114 pupils, and a dispensary.

Bīr.—District, *tāluk*, and town in Hyderābād State. *See* BHĪR.

Bīrbhūm.—District in the Burdwān Division of Bengal, lying between 23° 33′ and 24° 35′ N. and 87° 10′ and 88° 2′ E., with an area of 1,752 square miles. The name is commonly derived from Bīr Bhūmi, 'the land of heroes'; but some trace it to Bīr Rājā, a Hindu king of Rājnagar, the old capital. Probably Bīr was the title of an old line of rulers, just as were Mān, Singh, and Dhal of the rulers of Mānbhūm, Singhbhūm, and Dhalbhūm respectively. The District is bounded on the north-west by the Santāl Parganas; on the east by Murshidābād and Burdwān; and on the south by Burdwān. The administrative headquarters are at SŪRI town.

Physical aspects.

The District forms part of the eastern fringe of the Chotā Nāgpur plateau, and the surface is broken by a succession of undulations from north-west to south-east. To the west these rise into high ridges of laterite separated by valleys a mile or more in width, while to the south-east the valleys gradually merge into the alluvial plains of the Gangetic delta. The drainage from the plateau passes south-eastwards across the District, the only rivers of any size being the Mor and the Ajay, which forms the southern boundary. The Mor is a tributary of the Dwārka, and the latter and the Ajay are both affluents of the Bhāgīrathi. Their width varies from 200 yards to half a mile; neither river is navigable in the hot season, when they run almost dry in broad sandy beds. In the rains they swell rapidly till they overtop their banks and inundate

the surrounding country, but, even then, the Mor is only navigable down-stream. The other streams deserving notice are the Hinglā, a tributary of the Ajay, the Bakreswar, the Dwārka and its tributary the Brāhmanī, and the Bānsloi, all of which rise in the Santāl Parganas.

The geological formations represented in Bīrbhūm are the Archaean gneiss, the Gondwāna system, the laterite, and the Gangetic alluvium. The last conceals the older rocks, except in a narrow strip along the western boundary. The gneiss belongs to the division designated Bengal gneiss, which is remarkable for the great variety of rocks which it contains. The Gondwāna system includes the Rājmahāl, Dubrājpur, and Barākar subdivisions. The Barākar is a subdivision of the Lower Gondwāna, while the two other groups belong to the Upper Gondwāna; they occur in the Rāmgarh hills, which form the southern extension of the Rājmahāl range. The Dubrājpur group is found only in a narrow strip with faulted western boundary along the western border of the range. It consists of coarse grits and conglomerates, often ferruginous, containing quartz and gneiss pebbles, with occasionally hard and dark ferruginous bands. It is unconformably overlaid by the Rājmahāl group, consisting chiefly of bedded basic volcanic lavas of the nature of dolerites and basalts. Basic dikes scattered through the gneiss area represent the underground portion of these eruptions. Intercalated between successive lava-flows are some aqueous sedimentary layers, containing fossil plants similar to those found near Jubbulpore and in Cutch. The coal-measures are represented only by the Barākar group which forms the small Tangsuli field, on the northern bank of the Mor river, and by the northern edge of the Rānīganj coal-field. The coal which is contained in those outcrops is scanty and of poor quality. As a rule, it is scarcely more than a carbonaceous shale. Ferruginous laterite occupies large areas in the Rāmgarh hills and in the valleys of the Mor and Ajay rivers.

In the east the vegetation is characteristic of rice-fields in Bengal generally, species of *Aponogeton*, *Utricularia*, *Drosera*, *Dopatrium*, *Ilysanthes*, *Hydrolea*, *Sphenoclea*, and similar aquatic or palustrine genera being abundant. In the drier undulating country in the west the characteristic shrubs and herbs include species of *Wendlandia*, *Evolvulus*, *Stipa*, *Tragus*, *Perotis*, *Spermacoce*, *Zizyphus*, and *Capparis*. Round villages are the usual clumps of mangoes, palms, bamboos, and other trees, among which species of *Ficus*, jack, and *arjun* (*Terminalia Arjuna*) are often present. The District contains no Government forests; but in the west are forests containing *sāl* (*Shorea robusta*), *piār* (*Buchanania latifolia*), *dhau* (*Anogeissus latifolia*), *kend* (*Diospyros melanoxylon*), and *mahuā* (*Bassia latifolia*).

With the exception of a few leopards, big game has disappeared before the advance of cultivation.

The climate is dry, and high day temperatures are a feature of the hot months. The annual rainfall averages 57 inches, of which 10·7 inches fall in June, 12·7 in July, 12·1 in August, and 9·9 in September. Destructive floods occurred in 1787 and 1806, and again in September, 1902, when the Mor, Brāhmanī, and Bānsloi rivers rose suddenly and overflowed the surrounding country, causing great damage to villages, houses, roads, and bridges. In June, 1902, a cyclone passed through the Rāmpur Hāt subdivision, which derailed and wrecked a passenger train, causing great loss of life.

History.

At the beginning of the thirteenth century, Bīrbhūm was a Hindu principality with its capital at RĀJNAGAR or Nagar, and it is recorded that the Pathān conquerors constructed a road from DEVĪKOT, in Dinājpur, through Gaur to Nagar. This place was sacked by the Oriyās in 1244. The *zamīndāri* of Bīrbhūm first appears as a separate fiscal unit at the beginning of the eighteenth century, when a *sanad* was granted by Jafar Khān, Nawāb of Murshidābād, to Asad-ullah Pathān, to hold it as a kind of military fief. His family had probably reigned in the country since the fall of the Pathān dynasty of Bengal in 1600. The *zamīndāri*, which at that time included a great part of the Santāl Parganas and extended over 3,858 square miles, passed into the hands of the British in 1765, but it was not until 1787 that the Company assumed the direct government of Bīrbhūm. Meanwhile the District was overrun by marauders from the western highlands of Chotā Nāgpur, who formed large permanent camps, intercepted the revenues on the way to the treasury, and brought the commercial operations of the Company to a standstill. The Rājā could make no head against them, and it became absolutely necessary for the British Government to interfere. The two border principalities of Bīrbhūm and Bānkurā were united into one District, and a large armed force was maintained to repress the bands of plunderers, who for some time continued their depredations. In 1788 the Collector had to call out the troops against a body 500 strong, who had made a descent on a market town within two hours' ride of his head-quarters, and murdered or frightened away the inhabitants of between 30 and 40 villages. In the following year the inroads assumed even more serious proportions, the plunderers going about sacking villages 'in parties of three or four hundred men well found in arms.' The population was panic-stricken, the large villages and trading dépôts were abandoned; and the Collector was compelled hastily to recall the outposts stationed at the frontier passes, to levy a militia supplementing the regular troops, and to obtain reinforcements of soldiery from the neighbouring Districts. The banditti could not hold out against the forces thus brought against them, and were driven back into the mountains. Order was soon established, and the country recovered with amazing rapidity from the disastrous

effects of the ravages to which it had been exposed. The tranquillity of the District has since remained undisturbed, except during the Santāl insurrection of 1855. *See* SANTĀL PARGANAS.

In 1765 the District was more than twice its present size. In the beginning of the nineteenth century the *zamīndāri* of Bishnupur was formed into the independent Collectorate of Bānkurā, and some years later considerable tracts to the west were cut off and now form part of the Santāl Parganas.

Population.

The population of the present District area, which was 851,235 in 1872, fell to 792,031 in 1881, but rose to 798,254 in 1891 and to 902,280 in 1901. The decrease previous to 1881 was due to the ravages of the Burdwān fever, from which the District formerly suffered severely, and which was still prevalent in portions of the head-quarters subdivision in 1891. The District is now one of the healthiest in Bengal. Mortality is chiefly due to fever; cholera breaks out occasionally in the south-eastern *thānas*, but there have been no serious epidemics. Leprosy is very prevalent, the number of males afflicted amounting in 1901 to 3·21 per 1,000 of the population. This District and Bānkurā enjoy the unenviable notoriety of harbouring a greater number of lepers in proportion to their population than any other tract in India. The principal statistics of the Census of 1901 are shown below:—

Subdivision.	Area in square miles.	Number of Towns	Number of Villages	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901	Number of persons able to read and write.
Sūri	1,107	1	1,981	535,928	484	+ 14·0	44,352
Rāmpur Hāt	645	..	1,336	366,352	568	+ 11·7	25,695
District total	1,752	1	3,317	902,280	515	+ 13·0	70,047

The only town is SŪRI, the head-quarters. The increase of population at the Census of 1901 was most marked in the south, where it represents a recovery from the unhealthiness of the previous decade, and in the Murarai *thāna*, in the north, where there has been a considerable settlement of Santāls. The Rāmpur Hāt subdivision possesses a fertile soil, and is also tapped by the railway, and the District as a whole is now the most progressive in the Burdwān Division. The Santāl settlers are mostly cultivators; the District also receives a large number of labourers, shopkeepers, peons, &c., from Shāhābād and the United Provinces. On the other hand, many of its inhabitants emigrate to Assam as tea-garden coolies. The dialect spoken is that known as Rārhi *boli* or Western Bengali. Of the total population, 657,684 are

Hindus, 201,645 Muhammadans, and 42,019 Animists. Most of the Animists are found among the Santāls, who number 47,000.

Among Hindus, the most prominent castes are the semi-aboriginal Bāgdis (88,000) and the Sadgops (84,000). The Musalmāns are mostly Shaikhs (183,000), though there are also some Pathāns (12,000), Saiyids, and Jolāhās. Of the total population, 69 per cent. are supported by agriculture, 11·7 by industries, 0·4 by commerce, and 1·5 by the professions.

A Baptist mission, founded at the beginning of the nineteenth century by Dr. Carey, as a branch of the Serampore Mission, maintains a girls' school in Sūri and a few village schools. A Methodist Episcopal mission works at Bolpur on the East Indian Railway. Christians in 1901 numbered 819, of whom 709 were natives.

Agriculture.

The alluvial tract to the east is well watered and extremely fertile, but the western uplands are arid and barren. The chief agricultural statistics for 1903–4 are shown below, in square miles:—

Subdivision.	Total.	Cultivated.	Cultivable waste.
Sūri	1,107	596	89
Rāmpur Hāt . . .	645	460	52
Total	1,752	1,056	141

Of the cultivated area it is estimated that 37 square miles are twice cropped. Rice is the main staple, covering 999 square miles. Nine-tenths of the rice crop is of the variety known as *āman* (winter rice), which is sown in May and June and reaped in November and December. Other food-crops are relatively unimportant, but some maize, gram (*Cicer arietinum*), and sugar-cane are grown. Orchards and garden produce cover 39 square miles, and mulberry is extensively grown in the east in connexion with the silk industry.

The area under cultivation has been greatly extended in recent years by the Santāls, who have reclaimed large tracts of jungle land in the west of the District. Little advantage has been taken of the Land Improvement and Agriculturists' Loans Acts, except in 1896–7, a year of poor crops, when Rs. 14,000 was advanced under the former Act.

Pasturage is scarce in the east of the District, and the cattle are for the most part poor and ill-fed. A dairy farm has been started at Sūri, and a cattle and produce show is held there in January or February. Some English and Hissār bulls have been imported by the District board and the Sūri cattle show committee.

A good deal of irrigation is effected, by means of reservoirs, in the undulating country in the west; and sugar-cane, oilseeds, flax, and vegetables are watered from tanks or rivers by means of lifts.

Coal is mined on a small scale at Arang on the banks of the Ajay. Iron ores occur in beds towards the base of the laterite in the west; nodular limestone, mica, pottery clay, granite, and sandstone are also found.

Trade and communications.

Cotton-weaving is carried on at Supur, Raipur, and Ilām Bāzār in the Bolpur *thāna*, and at Alunda and Tāntipāra in the Sūri *thāna*, where good cloths and sheets are manufactured. A little silk is woven at Baswa, Bishnupur, Karidha, Tāntipāra, and a few other places, while silk-spinning is an important industry in the east of the District, a factory at GANUTIA, which originally belonged to the East India Company and is now in the possession of the Bengal Silk Company, being the head-quarters of the industry. The company owns another factory at Bhadrapur and out-factories at Kotāsur and Kaytha, and employs about 1,000 spinners. Lac bracelets, ink-pots, rulers, and other articles are made at Ilām Bāzār. Brass-ware is made at Dubrājpur, Tikarbetha, Ilām Bāzār, Hāzratpur, and Nalhāti, and iron-ware at Dubrājpur, Kharun, Lokpur, Rājnagar, and Rāmpur Hāt.

The chief exports are rice and raw silk; and the chief imports are salt, cotton, cotton thread, European cotton piece-goods, pulses, tobacco, kerosene oil, and coal. The principal trading centres are BOLPUR, SAINTHIĀ, RĀMPUR HĀT, NALHĀTI, Murarai, DUBRĀJPUR, Purandarpur, and Ahmadpur.

The loop-line of the East Indian Railway intersects the District from south to north, and a branch from Nalhāti runs eastward to Azīmganj. The chord-line of the same railway passes about 10 miles south of the District, and a line has been surveyed to connect Sainthiā station on the loop line with Andāl on the chord passing through Sūri and Dubrājpur. In addition to 140 miles of village tracks, the District contains 126 miles of metalled and 302 miles of unmetalled roads maintained by the District board, the most important being those from Kātwa through Sūri to Dumkā and those connecting Sūri with the railway.

Famine.

The District has not suffered from famine since 1874, but in 1885 there was some local scarcity and Government relief was necessary.

Administration.

For administrative purposes Bīrbhūm is divided into two subdivisions, with head-quarters at SŪRI and RĀMPUR HĀT. The District Magistrate-Collector has at Sūri a staff of three Deputy-Magistrate-Collectors; the subdivisional officer at Rāmpur Hāt is assisted by a Sub-Deputy-Collector.

Subordinate to the District Judge for the disposal of civil work are a Subordinate Judge, with powers of a Small Cause Court judge up to Rs. 500, and six Munsifs stationed at Sūri, Dubrājpur, Bolpur (2), and

Rāmpur Hāt (2). The criminal courts are those of the Sessions Judge, the District Magistrate, and the above-mentioned magistrates. Formerly the head-quarters of wandering bands of banditti, Bīrbhūm is now one of the quietest Districts in Bengal. Crime is light, but dacoities are not infrequent, a local gang of Muhammadans being responsible for twenty-three dacoities between 1896 and 1904.

The land revenue demand in 1903-4 was 10·09 lakhs, payable by 1,060 estates. With the exception of five small estates paying a total revenue of Rs. 2,000, the whole of the District is permanently settled. The incidence is only Rs. 1-7-5 per cultivated acre, or less than half that prevailing in the neighbouring District of Burdwān. The *ghātwāli* rent-free tenures which formerly existed in this District were resumed by Government in 1901. They are described in the article on BĀNKURĀ DISTRICT. Ordinary rice lands are rented at from Rs. 3 to Rs. 9 per acre, and sugar-cane lands at Rs. 9 and upwards, while as much as Rs. 15 is paid for good vegetable lands and Rs. 80 for plots on which betel-leaf (*Piper Betle*) is grown. The ryots frequently sublet their holdings for a share in the produce.

Collections on account of land revenue and of total revenue (principal heads only) are shown below, in thousands of rupees :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	8,03	10,21	10,09	10,08
Total revenue . .	11,31	14,48	16,45	17,07

Outside the municipalities of SŪRI and RĀMPUR HĀT, local affairs are managed by the District board, to which subdivisional local boards are subordinate. The income of the District board in 1903-4 was Rs. 1,33,000, of which Rs. 76,000 was derived from rates; and the expenditure was Rs. 1,40,000, of which Rs. 83,000 was spent on public works.

The District contains 9 police stations and 5 outposts. The force subordinate to the District Superintendent in 1903 consisted of 2 inspectors, 27 sub-inspectors, 13 head constables, and 235 constables; in addition to which there was a rural police of 236 *daffadārs* and 3,144 *chaukīdārs*. The cost of the regular force was Rs. 68,000, and there was one policeman to every 11 square miles and to every 5,674 persons. The District jail at SŪRI has accommodation for 290 prisoners, and a subsidiary jail at Rāmpur Hāt for 18.

In 1901 the proportion of literate persons was 7·7 per cent. (15·3 males and 0·4 females). The total number of pupils under instruction increased from about 12,000 in 1881 to 24,043 in 1892-3 and to 27,303 in 1900-1. In 1903-4, 27,210 boys and 1,557 girls were at school, being respectively 40·7 and 2·2 per cent. of the children of school-going

age. The number of educational institutions, public and private, in that year was 1,046, including one Arts college, 52 secondary, 952 primary, and 41 special schools. The expenditure on education was Rs. 1,61,000, of which Rs. 11,000 was met from Provincial funds, Rs. 25,000 from District funds, Rs. 500 from municipal funds, and Rs. 91,000 from fees. These institutions include 15 Santāl schools attended by about 400 pupils of aboriginal origin.

In 1903 the District contained 8 dispensaries, of which 3 with 25 beds had accommodation for in-patients. The cases of 35,000 out-patients and 211 in-patients were treated during the year, and 2,391 operations were performed. The expenditure was Rs. 12,000, of which Rs. 400 was met from Government contributions, Rs. 3,000 from Local and Rs. 1,200 from municipal funds, and Rs. 4,000 from subscriptions. In addition, a sum of Rs. 20,000 received on behalf of the Chetlā Dispensary was invested.

Vaccination is compulsory only within Sūri municipality. In 1903-4 the number of successful vaccinations was 27,500, or 31 per 1,000 of the population.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. iv (1876), and *Annals of Rural Bengal* (1868); E. G. Drake-Brockman, *Notes on the Early Administration of the Bīrbhūm District* (Calcutta, 1898).]

Bīrnāgar (or Ula).—Town in the Rānāghāt subdivision of Nadiā District, Bengal, situated in 23° 15′ N. and 88° 34′ E. Population (1901), 3,124. Bīrnāgar was constituted a municipality in 1869. The income during the decade ending 1901-2 averaged Rs. 3,700, and the expenditure Rs. 2,900. The income in 1903-4 was Rs. 3,400, mainly from a tax on persons (or property tax); and the expenditure was Rs. 2,400.

Birūr.—Town in the Kadūr *tāluk* of Kadūr District, Mysore, situated in 13° 36′ N. and 75° 58′ E., at the junction for the Shimoga branch railway. Population (1901), 5,701. Areca-nuts from the Malnād in the west are exported to Bellary and Dhārwār. A very large trade is carried on in coco-nuts, grain, and other produce of the surrounding country. The town has been extended in recent years. The municipality dates from 1870. The receipts and expenditure during the ten years ending 1901 averaged Rs. 4,700 and Rs. 4,400. In 1903-4 they were Rs. 4,000 and Rs. 6,500.

Bīsalpur Tahsīl.—Southern *tahsīl* of Pīlībhīt District, United Provinces, conterminous with the *pargana* of the same name, lying between 28° 6′ and 28° 32′ N. and 79° 42′ and 80° 2′ E., with an area of 363 square miles. Population increased from 190,864 in 1891 to 196,333 in 1901. There are 424 villages and two towns, including Bīsalpur (population, 9,851), the *tahsīl* head-quarters. The demand for land revenue in 1903-4 was Rs. 3,25,000, and for cesses Rs. 53,000.

The density of population, 541 persons per square mile, is the highest in the District. Three considerable rivers, the Deohā, Katnā, and Khanaut, and a number of smaller streams flow from north to south, and are dammed and used for irrigation, especially the upper course of the Katnā, which passes through the Mālā swamp. In 1903-4 the area under cultivation was 241 square miles, of which 84 were irrigated, mostly from wells.

Bīsalpur Town.—Head-quarters of the *tahsīl* of the same name in Pīlībhīt District, United Provinces, situated in 28° 18′ N. and 79° 49′ E., 23 miles south of Pīlībhīt town. Population (1901), 9,851. It is said to have been founded by one Bīsū, Ahīr, in the reign of Shāh Jahān and a fort was built here during the rule of the Rohillas. The town is merely an overgrown agricultural village, surrounded on all sides but the south by groves. The centre is occupied by a good market-place, where four roads meet, and brick houses are increasing in number. The chief public buildings are the municipal hall, *tahsīlī*, dispensary, and school. Bīsalpur has been a municipality since 1862. During the ten years ending 1901 the income and expenditure averaged Rs. 6,000. The income in 1903-4 was Rs. 12,000, chiefly from octroi (Rs. 7,000); and the expenditure was Rs. 10,700. Trade is largely local, consisting in the collection of sugar and grain. The municipality maintains one school and aids two others, attended by 239 pupils.

Bisaulī Tahsīl.—North-eastern *tahsīl* of Budaun District, United Provinces, comprising the *parganas* of Bisaulī, Islāmnagar, and Satāsī, and lying between 28° 8′ and 28° 28′ N. and 78° 32′ and 79° 8′ E., with an area of 360 square miles. Population increased from 183,716 in 1891 to 211,507 in 1901. There are 350 villages and three towns, the largest being ISLĀMNAGAR (population, 6,367) and BISAULĪ (5,323), the head-quarters. The demand for land revenue in 1903-4 was Rs. 3,18,000, and for cesses Rs. 38,000. The density of population, 588 persons per square mile, is considerably above the District average. Bisaulī is one of the most prosperous *tahsīls* in Budaun. It lies almost entirely in the fertile Katehr tract, and is watered by the Sot and Aril rivers. There are also numerous small lakes or *jhīls*. In 1903-4 the area under cultivation was 322 square miles, of which 69 were irrigated, mostly from wells.

Bisaulī Town.—Head-quarters of the *tahsīl* of the same name in Budaun District, United Provinces, situated in 28° 18′ N. and 78° 57′ E., 23 miles north-east of Budaun town. Population (1901), 5,323. The town first became of importance under Dunde Khān, lieutenant of Alī Muhammad and Hāfiz Rahmat Khān, the celebrated Rohilla chiefs, who built a fort here about 1750. After the fall of the Rohilla power Bisaulī declined. Near the town is Dunde Khān's tomb, which stands on a commanding spot overlooking the broad valley of the Sot.

Bisaulī contains a *tahsīlī*, a *munsifī*, a dispensary, and a branch of the American Methodist Mission. It is administered under Act XX of 1856, with an income of about Rs. 1,400. The trade of the place is purely local. The *tahsīlī* school has 117 pupils, and there is a small girls' school.

Bishenpur.—Subdivision and town in Bānkurā District, Bengal. *See* BISHNUPUR.

Bishnupur Subdivision.—Eastern subdivision of Bānkurā District, Bengal, lying between 22° 54′ and 23° 25′ N. and 87° 15′ and 87° 46′ E., with an area of 700 square miles. The subdivision is for the most part alluvial and flat, presenting the appearance of the ordinary paddy lands of Bengal; but the level surface is broken here and there by undulating slopes of infertile laterite. The population in 1901 was 404,356, compared with 377,311 in 1891, the density being 578 persons to the square mile. It contains two towns, BISHNUPUR (population, 19,090), its head-quarters, and SONĀMUKHĪ (13,448); and 1,523 villages.

Bishnupur Town.—Ancient capital of Bānkurā District, Bengal, situated in 23° 5′ N. and 87° 20′ E., a few miles south of the Dhalkisor river. Population (1901), 19,090. The family of the Rājās of Bishnupur, which was founded in the eighth century, was at one time one of the most important dynasties in Bengal; they were nominally tributary to the Muhammadan Nawābs, but frequently exercised independent powers. In the eighteenth century the family rapidly declined; they were impoverished by the ravages of the Marāthās, and the famine of 1770 depopulated their territory and completed their ruin. The estate was ultimately sold, in detached portions, for arrears of land revenue.

Ancient Bishnupur was, according to the native chronicles, a city 'more beautiful than the beautiful house of Indra in heaven.' It was surrounded by seven miles of fortifications, within which lay the citadel, containing the palace of the Rājās. The ruins are very interesting. Near the south gateway are the remains of an extensive series of granaries; and inside the fort, which is overgrown with jungle, lies an iron gun 10½ feet long, the gift, according to tradition, of a deity to one of the Rājās. Within the boundaries of the fort are numerous brick temples covered with curious mouldings, representing birds, flowers, and other ornaments. The most important are the Jorbangala, the Rāshmancha, and the Malleswar temples.

At the present day Bishnupur is an important trading centre, the exports being rice, oilseeds, lac, cotton, silk cloth and silk cocoons; and the imports English piece-goods, salt, tobacco, spices, coco-nuts, and pulses. It contains a large weaving population, and is a centre of the *tasar* silk industry, while it is also noted for its embroidered silk scarves and shawls. The grand trunk road from Calcutta to the north-west

passes through the town, and it is a station on the newly constructed Midnapore-Jherriā branch of the Bengal-Nāgpur Railway. Bishnupur was constituted a municipality in 1863. The income during the decade ending 1901-2 averaged Rs. 6,700, and the expenditure Rs. 6,300. In 1903-4 the income was Rs. 13,000, of which Rs. 6,000 was derived from a tax on persons (or property tax), and Rs. 4,000 was a loan from Government. The expenditure in the same year was Rs. 8,000. The town contains the usual public offices; the sub-jail has accommodation for 15 prisoners.

[Sir W. W. Hunter, *Annals of Rural Bengal* (1868); *Archaeological Survey Reports*, vol. viii, pp. 203-6.]

Bison Hill.—Hill in the Pāpikonda range, in the Polavaram minor *tāluk*, Godāvari District, Madras, situated on the right bank of the Godāvari river where it emerges from the gorge, and about 2,700 feet above the sea. It takes its name from the bison (*Bos gaurus*) which frequent the plateau of the Pāpikonda range.

Bisrāmpur.—Chief place of the Surgujā State, Central Provinces, situated in 23° 7′ N. and 83° 12′ E. Population (1901), 3,279. The village contains the residence of the chief, a jail, and a charitable dispensary. Bisrāmpur has given its name to a coal-measure extending over about 400 square miles in the eastern portion of the comparatively low ground in the centre of Surgujā State. Good coal exists in abundance, but no borings have yet been made. At present, the distance of the field from the railway precludes the possibility of the coal being worked.

Bissamcuttack.—*Tahsīl* in Vizagapatam District, Madras, situated entirely within the Agency tract and comprising the upper basins of the Nāgāvali (or Lāngulya) and Vamsadhāra rivers. It may be described as generally hilly, though the Nāgāvali valley which runs through it is one of the great channels of communication between the Central Provinces and the sea. The proposed railway from Raipur to Vizianagram will follow this route. The hills are as a rule barren; but the valleys are well cultivated, grain, tobacco, saffron, and mustard being the chief exports. The land tenure throughout is *zamīndāri*, and the *zamīndār* is a feudatory of the Rājā of Jeypore. The area of the *tahsīl* is about 1,200 square miles, and it contains a population (1901) of 59,445, living in 837 villages. The people are for the most part Khonds, though many Telugus reside in the valleys. The head-quarters are at Bissamcuttack village (population, 2,026).

Bissau.—Chief town of an estate of the same name in the Shekhāwati *nizāmat* of the State of Jaipur, Rājputāna, situated in 28° 15′ N. and 75° 5′ E., about 105 miles north-west of Jaipur city, and within a mile or two of the Bīkaner border. The town, which is walled, and possesses a fort of some pretensions, is the residence of a Thākur who

pays a tribute of Rs. 9,700 to the Jaipur Darbār. Population (1901), 7,726. There are four schools attended by about 340 boys, and a combined post and telegraph office.

Bissemkatak.—*Zamīndāri tahsīl* of Vizagapatam District, Madras. *See* BISSAMCUTTACK.

Bist Jullundur Doāb.—A *doāb* or 'tract between two rivers' (the Beās and Sutlej) in the Punjab, lying between 30° 57′ and 32° 7′ N. and 75° 4′ and 76° 38′ E., and comprising Jullundur and Hoshiārpur Districts and the State of Kapūrthala. The name was formed by the Mughal emperor Akbar, by combining the first syllables of the names of the two rivers. It is also known as the Sāharwāl Doāb.

Biswān Tahsīl.—North-eastern *tahsīl* of Sītāpur District, United Provinces, comprising the *parganas* of Biswān, Tambaur, and Kondrī (North), and lying between 27° 22′ and 27° 44′ N. and 80° 50′ and 81° 20′ E., with an area of 565 square miles. Population increased from 271,894 in 1891 to 297,277 in 1901. There are 501 villages, and one town, BISWĀN (population, 8,484), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 3,66,000, and for cesses Rs. 58,000. The density of population, 526 persons per square mile, is about the District average. The *tahsīl* is bounded on the east by the Gogra, which constantly overflows and shifts its channel, and on the north by the Dahāwar, a branch of the Sārdā. Another branch of the Sārdā, called the Chaukā, flows sluggishly across the centre. The eastern part is thus situated in a damp alluvial tract, liable to severe floods; but the south-west stretches up to the elevated area in the centre of the District. In 1903–4 the area under cultivation was 416 square miles, of which only 36 were irrigated. Swamps and tanks supply more than two-thirds of the irrigated area.

Biswān Town.—Head-quarters of the *tahsīl* of the same name, in Sītāpur District, United Provinces, situated in 27° 29′ N. and 81° 1′ E., at the termination of metalled roads from Sītāpur and Sidhaulī railway station. Population (1901), 8,484. The town is said to have been founded about 1350 by a *fakīr* named Biswā Nāth. Some tombs of the early Muhammadan period are ascribed to followers of Saiyid Sālār. Biswān also contains a fine mosque built in the reign of Shāh Jahān, and a stately palace, *sarai*, mosque, and *dargāh* built by Shaikh Bārī towards the close of the eighteenth century. Besides the usual offices there is a dispensary. The town is administered under Act XX of 1856, with an income of about Rs. 2,000. A large market is held twice a week, and Biswān is celebrated for its tobacco, *tāzias* or *tābūts*, cotton prints, and printed pottery. Trade is declining, but may revive when the railway is constructed from Sītāpur to Būrhwal. There are two schools.

Bithūr.—Town in the District and *tahsīl* of Cawnpore, United

Provinces, situated in 26° 37′ N. and 80° 16′ E., near the Ganges, on a branch line of the Cawnpore-Achhnerā Railway. Population (1901), 7,173. The Hindus believe that Brahmā celebrated the completion of the creation of the world by a horse sacrifice at this place. A great bathing-fair takes place annually in November at the Brahmāvarta *ghāt*. Early in the nineteenth century the civil head-quarters of the District were for a time at Bithūr. Bājī Rao, the last of the Peshwās, was banished to Bithūr and had extensive palaces in the town. His adopted son, Dundu Pant, better known as the Nāna Sāhib, was the instigator of the massacre at CAWNPORE in 1857. The town was captured by Havelock's forces on July 19, when the palaces were utterly destroyed; but the Nāna succeeded in making good his escape. In the neighbourhood of Bithūr some prehistoric copper arrow-heads and hatchets have been found. The town is administered under Act XX of 1856, with an income of about Rs. 2,000. There is a primary school with 70 pupils.

Black Mountain.—A mountain range on the north-western border of Hazāra District, North-West Frontier Province, lying between 34° 32′ and 34° 50′ N. and 72° 48′ and 72° 58′ E. Bounded on the east by Agror and on the south by Tanāwal, the range has a length of 25 to 30 miles from north to south and an elevation of 8,000 feet above sea-level. The Indus washes its northern extremity and thence turns due south. Between the river and the crest of the range the western slopes are occupied by Yūsufzai Pathāns. The rest of the range is held by Swātis, or tribes who have been gradually driven from Swāt by the Yūsufzai. The Black Mountain forms a long, narrow ridge, with higher peaks at intervals and occasional deep passes. Numerous spurs project from its sides, forming narrow gorges in which lie the villages of the tribes. The upper parts of the ridge and spurs are covered with thick forests of pine, oak, sycamore, horse-chestnut, and wild cherry; but the slopes are stony and barren. In 1851 the Hasanzai sept of the Yūsufzai murdered two officers of the British Customs (Salt) department within the borders of Tanāwal. Punishment for this outrage was inflicted by an expedition under Colonel Mackeson, which destroyed a number of tribal strongholds. In 1868 the Yūsufzai, instigated by the Khān of Agror, who resented the establishment of the police post at Oghi in the Agror valley, attacked that post in force, but were repulsed. Further attacks on the troops of the Khān of Tanāwal, who remained loyal, followed, and soon culminated in a general advance of the Black Mountain tribes against the British position. This was repulsed, but not until twenty-one British villages had been burnt, and a second expedition under General Wilde had overrun the Black Mountain and secured the full submission of the tribes. In consequence of raids committed in the Agror valley by the Hasanzai and Akazai aided by the Madda Khel, a blockade was commenced in the year 1888. While

more stringent measures were being organized, Major Battye and Captain Urmston and some sepoys of the 5th Gurkhas were surprised and killed by Gūjar dependants of the Akazai. Hāshim Alī, the head of the Hasanzai and Akazai, was suspected of having instigated the crime. An expedition was sent in the same year, with the result that the tribes paid the fines imposed upon them, and agreed to the removal of Hāshim Alī from the Black Mountain and the appointment in his place of his near relative and enemy Ibrāhīm Khān. In 1890 the tribe opposed the march of troops along the crest of the Black Mountain, and an expedition was sent against them in the spring of 1891. Immediately after the withdrawal of the troops, the Hindustānis (*see* AMBELA) and Madda Khel broke their agreement with Government by permitting the return of Hāshim Alī. A second expedition was dispatched in 1892, which resulted in the complete pacification of the Black Mountain border.

Boad.—Native State and village in Orissa, Bengal. *See* BAUD.

Boāliā.—Subdivision and town in Rājshāhi District, Eastern Bengal and Assam. *See* RĀMPUR BOĀLIA.

Bobbili Estate.—*Zamīndāri* estate in Vizagapatam District, Madras, the head-quarters of which are at the town of the same name. It lies along the foot of the Eastern Ghāts, extending eastwards across the plain irrigated by the Nāgāvali river, and comprises the whole of the Bobbili *tahsīl* and parts of the adjoining Pālkonda *tāluk* and Sālūr *tahsīl*. The country is flat and extensively cultivated, and the estate has prospered exceedingly under the management of the present Rājā and his predecessors.

Bobbili is one of the most ancient *zamīndāris* in the Presidency and possesses an interesting history. When, in 1652, Sher Muhammad Khān, the Nawāb of Chicacole, entered the District, there followed in his train two rivals, Peddarāyudu, the ancestor of the present chief of Bobbili, and the ancestor of the VIZIANAGRAM family; and from this time dates the rivalry between the two houses. Peddarāyudu soon after received an estate in reward for gallantry, and on this he built a fort, naming it Bobbili ('the royal tiger') in honour of his patron's designation *Sher* ('tiger'). This estate bordered on Vizianagram, and there was constant friction between the two chiefs. In 1756 the turbulence of the local chieftains called for measures of repression, and the French general Bussy marched with a European force to restore order. On his reaching Vizianagram, the Rājā assured him that the chief of Bobbili was the instigator of all the disturbances, and to testify his own loyalty joined the French with a force of 11,000 men to assist in crushing his rival. Before attacking Bobbili, Bussy offered the chief a pardon for the past and lands of equal value elsewhere if he would abandon his ancestral estate; but the offer was refused.

The attack on the fort at Bobbili which followed is one of the most memorable in Indian history. At daybreak the field-pieces began to play on the mud defences, practicable breaches were at once made, and the assault sounded. After four hours' fierce hand-to-hand fighting, Bussy called off his men to allow the cannon to widen the breaches. A second assault was then ordered, but with no better results, for not a man had gained a footing within the ramparts when, five hours later, Bussy again withdrew the storming party to repeat the argument of artillery. The defenders now recognized their desperate position, and collecting their wives and families put them to death and returned to their posts. The assault soon recommenced; and when at sunset Bussy entered the fort as victor with the remnant of his army, it was only because every man in the garrison was dead or mortally wounded. An old man, however, crept out of a hut and leading a child to Bussy presented him as the son of the dead chief. Three nights later, when the Vizianagram camp was buried in sleep, four followers of Bobbili crept into the Rājā's tent, and before the sentries had discovered and shot down the assassins they had stabbed the Rājā to death, inflicting thirty-two wounds on his body.

The child saved from the slaughter, Chinna Ranga Rao, was invested by Bussy with the chiefship of the lands that had been offered to his father; but before he attained his majority his uncle regained by force of arms his former estate. Eventually the Vizianagram family came to terms with their rivals, and leased certain areas to them. The old feud, however, subsequently broke out again, and the Bobbili chief fled into the Nizām's country. But in 1794, when the Vizianagram estate was dismembered, Chinna Ranga Rao was restored by the British to his father's domains, and in 1801 a permanent settlement was concluded with his son for a tribute of Rs. 90,000.

Since then, under a series of able *zamīndārs*, things have gone well with the estate. Its income exceeds 5 lakhs, and the *peshkash* payable to Government is Rs. 83,652. The present *zamīndār*, Mahārājā Sir Venkataswetāchalapati Ranga Rao, K.C.I.E., the adopted great-grandson of the holder of the permanent settlement, is one of the foremost noblemen of the Madras Presidency. In 1895 he was invested with a knighthood of the Order of the Indian Empire, and in 1900 the title of Mahārājā was conferred upon him as a personal distinction, the title of Rājā having already been recognized as hereditary in the family. He has also been a member of the Madras Legislative Council, and has visited England.

Bobbili Tahsīl.—*Tahsīl* in the east of Vizagapatam District, Madras, lying between 18° 26′ and 18° 44′ N. and 83° 14′ and 83° 33′ E., with an area of 268 square miles. The population in 1901 was 133,577, compared with 128,785 in 1891. The *tahsīl* contains

one town, BOBBILI (population, 17,387), the head-quarters; and 167 villages. It is entirely *zamīndāri*, and belongs to the Rājā of Bobbili. It is very flat and is under extensive cultivation. The demand for land revenue and cesses in 1903–4 was Rs. 1,34,000.

Bobbili Town.—Head-quarters of the *tahsīl* of the same name in Vizagapatam District, Madras, situated in 18° 34′ N. and 83° 23′ E. The population, which is increasing rapidly, numbered 17,387 in 1901. It is the residence of the Rājā of Bobbili, who lives in a fortified enclosure. A short distance outside can be traced the position of the old fort, the heroic defence of which against the forces of Vizianagram and the French (*see* BOBBILI ESTATE) is still remembered. The Rājā maintains two hospitals in the town, one of them an institution for women in charge of a lady apothecary.

Bobleshwar.—Village in the Bijāpur *tāluka* of Bijāpur District, Bombay, situated in 16° 40′ N. and 75° 37′ E., 15 miles south-west of Bijāpur town. Population (1901), 6,300. The present village is said to have been established by the people of the seven surrounding villages, who, finding that it was the resort of dacoits and lawless characters, cut down a *babūl* grove in which a god stood and removed the idol to the temple of Siddheshwar in the middle of the village, built by one Marlingappa Jangamsett about 1780. Outside the village, on the east, is a temple of Ambal Mutiappa, built like a mosque, and with no images.

Bod.—Native State and village in Orissa, Bengal. *See* BAUD.

Bodā-no-nes.—Petty State in KĀTHIĀWĀR, Bombay.

Bodhan Tāluk.—*Tāluk* in Nizāmābād District, Hyderābād State, with an area of 317 square miles. The population in 1901, including *jāgīrs*, was 52,862, compared with 50,779 in 1891. The *tāluk* has one town, BODHAN (population, 6,438), the head-quarters, and 65 villages, of which 23 are *jāgīr*. The land revenue in 1901 was 1·7 lakhs. In 1905 the area was increased by the addition of part of the Bānswāda *tāluk*. The Mānjra river forms the western boundary. Kotgīr, a *paigāh tāluk*, having a population of 24,267 and an area of about 120 square miles, lies to the south, with 49 villages and one town, KONDALWĀDI (population, 6,557). The *jāgīr tāluk* of Gāndhārī, having a population of 10,180, lies to the south-east, with 28 villages and an area of about 85 square miles.

Bodhan Town.—Head-quarters of the *tāluk* of the same name in Nizāmābād District, Hyderābād State, situated in 18° 40′ N. and 77° 53′ E., 16 miles west of Nizāmābād town. Population (1901), 6,438. It contains a Jāma Masjid, a temple of Narsingaswāmi, a police inspector's office, a sub-post office, and one school with 117 pupils. Three large tanks are situated on the east, north, and south of the town, irrigating 2,000 acres of land.

Bodh Gayā.—Village in Gayā District, Bengal. *See* BUDDH GAYĀ.

Bodināyakkanūr.—Town in the Periyakulam *tāluk* of Madura District, Madras, situated in 10° 1′ N. and 77° 21′ E. Population (1901), 22,209. The town, which is the chief place in the *zamīndāri* of the same name, is growing rapidly, mainly because the coffee, cardamoms, and tea of the Devikolam and Munnar estates, which have in recent years been opened out on the hills in Travancore just above it, pass through on their way to the railway; and it is also a base for the supply of the grain and other articles consumed by the employés on these estates. It is under consideration to construct a railway to the town from Ammayanāyakkanūr on the South Indian Railway. The Bodināyakkanūr *zamīndāri* is one of the seventy-two ancient *pālaiyams* (*poligārs'* estates) of Madura. The *zamīndār's* family is said to have migrated hither from Gooty in 1336. The estate was seized by Haidar Alī in 1776, and after an interval of semi-independence was resumed by his son Tipū for arrears of tribute. The Rājā of Travancore subsequently seized the property, but in 1793 the *zamīndār* recovered it. The country was thereafter settled by British officers.

Bodvad.—Town in the Bhusāwal *tāluka* of East Khāndesh District, Bombay, situated in 20° 53′ N. and 76° E., 2 miles south of the Nādgaon railway station, which is now called Bodvad. Population (1901), 5,670. Bodvad is joined to Nādgaon by a metalled road, and has an important trade in cotton and oilseeds. The houses are for the most part poor and badly built, and the streets narrow, crooked, and dirty. It was once a place of some consequence, but the only remains are a ruined fort, town gateways, and a reservoir. The town contains two cotton-ginning and pressing factories, and a school for boys with 197 pupils.

Bogale.—South-western township of Pyapon District, Lower Burma, lying between 15° 40′ and 16° 29′ N. and 95° 6′ and 95° 36′ E., with an area of 1,057 square miles. The whole area is low-lying and intersected by a labyrinth of tidal creeks. It is triangular in shape, with its base along the sea-coast, and only the northern portion, or about one-third of the whole, is cleared of jungle. Considerably more than half the township consists of forest Reserves, and the density of population is, in consequence, low. The population increased from 9,724 in 1891 to 43,756 in 1901, distributed in 272 villages, Bogale (population, 2,397), at the confluence of the Gonnyindan and Dala rivers, being the headquarters. Pyindaye, the village from which the township formerly took its name, is situated close to the sea at the mouth of the Lala river, which traverses the township from end to end. In 1903–4 the area cultivated was 155 square miles, paying Rs. 2,34,000 land revenue.

Bogāpāni.—River of Assam, which rises on the east of the Shillong peak in the Khāsi Hills, and after flowing west and south through the

hills past Maoflang and Shellā falls into the Surmā at Chhātak in Sylhet District. In the lower part of its course it is an important trade route, for the carriage of limestone, oranges, bay-leaves, and other products of the hills. The total length of the Bogāpāni is 52 miles.

Bogra.—River of Assam. *See* BOGĀPĀNI.

Bogra District (*Bagurā*).—District in the Rājshāhi Division of Eastern Bengal and Assam, lying between 24° 32′ and 25° 19′ N. and 88° 52′ and 89° 41′ E., with an area of 1,359 square miles. Bogra is a small District, but it is very prosperous, as its fertile soil grows fine jute crops and communications are excellent both by rail and river. It lies on the right bank of the Brahmaputra (here called the Daokobā), and is bounded on the north by the Districts of Rangpur and Dinājpur; on the south by Pābna and Rājshāhi; and on the west by Rājshāhi and Dinājpur.

Physical aspects.

The Karatoyā river traverses the District from north to south, and divides it into two unequal portions with distinct characteristics. The eastern tract is a light loam, the ordinary alluvium of the lower Brahmaputra valley, while the western and larger portion merges into the undulating clay of Dinājpur, and belongs to the elevated tract of *quasi*-laterite formation known as the BĀRIND, in which name the BĀRENDRA division of ancient Bengal still survives. Here the soil is a stiff reddish clay, resting on a lower stratum of sand, and covered, where not reclaimed, by dense undergrowth. The District is seamed by river-beds. The JAMUNĀ, which forms the greater part of the western boundary, the Nāgar, KARATOYĀ (or Phuljhur), and Bangāli are all portions of the same drainage system; they are connected by cross-streams, and all fall ultimately into the Atrai or the Brahmaputra. Numerous marshes have been formed by the silting up of the old river-beds and the consequent obstruction of the drainage in the depressed tracts between them. In the east and south especially, the greater part of the country is a network of swamps, most of which are dry from January to June. One of these, known locally as the Bara Bīl, is connected with the great Chalan Bīl in Rājshāhi.

The surface is covered by alluvium. The Bārind belongs to an older alluvial formation, which is usually composed of massive argillaceous beds of a rather pale reddish brown hue, often weathering yellowish, disseminated throughout which occur *kankar* and pisolitic ferruginous concretions. The newer alluvial deposits consist of sandy clay and sand along the course of the rivers, and fine silt consolidating into clay in the flatter parts of the river plain.

Where the ground is not occupied by the usual crops of North Bengal, it is covered with an abundant natural vegetation. Old river-beds, ponds and marshes, and streams with a sluggish current have

a copious vegetation of *Vallisneria* and other plants. Land subject to inundation has usually a covering of *Tamarix* and reedy grasses, and where the ground is more or less marshy *Rosa involucrata* is plentiful. Few trees occur on these inundated lands; the most plentiful and largest is *Barringtonia acutangula*. The District contains no forests, but in the Bārind gigantic *pīpal* (*Ficus religiosa*) and *sāl* trees (*Shorea robusta*) are numerous, and dense scrub jungle still remains in places in the Sherpur and Pānchbībī *thānas*; even here, however, the greater portion of the surface is covered with grasses, the commonest of these being *Imperata arundinacea* and *Andropogon aciculatus*. Among the trees the most conspicuous are the red cotton-tree (*Bombax malabaricum*) and the jack-tree (*Artocarpus integrifolia*); the *sissū* (*Dalbergia Sissoo*) and mango occur as planted or sometimes self-sown species. The villages are generally surrounded by thickets or shrubberies of semi-spontaneous trees of a more or less useful character.

Leopards are still met with in the jungles of the Bārind, but tigers, which were formerly numerous, have disappeared before the spread of cultivation.

The temperature in the cold season is comparatively low owing to northerly winds from the Himālayan region; and the heat is never excessive, the mean temperature being 64°, the mean maximum 96° in April and the mean minimum 57° in January. Mean temperature rises to 77° in March and reaches 84°, its highest point, in April. Rainfall commences early in the hot season, and the annual fall averages 65 inches, of which 7·9 occur in May, 12·5 in June, 12·6 in July, 11·5 in August, and 10·6 in September.

A terrible cyclone swept over the District on October 5, 1864, from the south-east, destroying many houses and trees; it was accompanied by a high flood in the eastern *thānas*. A still higher flood occurred in 1886, when the extraordinary rainfall of 18 inches took place between the hours of 11.30 p.m. and 1 a.m. on the night of June 30. The town of Bogra and the greater part of the District were flooded, and portions of the railway were swept away. The District has suffered much from earthquakes. Many lives were lost in that of June, 1885, when the line of greatest intensity passed through Bogra, and the earthquake of December, 1888, also did considerable damage; but the most severe of recent times was that of 1897, which overthrew most of the brick buildings in the towns of Bogra and Sherpur, including the Government offices, and struck a severe blow at the prosperity of the latter town, which was already decadent. At the same time numerous fissures opened, and outpourings of sand and water occurred in the soft soil between the Karatoyā and Brahmaputra rivers; marked changes also took place in the level of the country, and the roads and bridges were damaged.

Little is known of the early history of the District. The Karatoyā river at one time formed the boundary between the old kingdoms of Kāmarūpa and Pundra or Paundravardhana, the country of the Pods, whose capital was at MAHĀSTHĀN. In the ninth century the Pāl dynasty ruled the country, but they were ousted in the eleventh century by the Sens, a Hindu dynasty which gave the name of Bārendra to the old Pundra country. When the District came under the Muhammadans, they had a fort at Mahāsthān and a frontier outpost at SHERPUR. Bogra passed under British rule with the rest of Bengal in 1765. The District was first formed in 1821, when certain *thānas* were taken from Rājshāhi, Dinājpur, and Rangpur, and placed for the purposes of criminal jurisdiction under a Joint-Magistrate, who was stationed at Bogra; in 1832 he was charged with the collection of revenue from some estates. Several minor interchanges of jurisdiction subsequently took place with the neighbouring Districts, but it was not until 1859 that Bogra was definitely constituted an independent District.

History.

Archaeological interest centres round Mahāsthān and Sherpur, but there are also ruins at Khetlāl and elsewhere, while Bhawānīpur, on the southern border, is connected by tradition with Rānī Bhawāni, and is much frequented by Hindus from Pābna and Rājshāhi.

Bogra is, after Pābna, the most densely populated District in North Bengal, having a density of 629 persons per square mile. It contains two towns, BOGRA, the administrative head-quarters, and SHERPUR; and 3,865 villages. The population increased from 642,060 in 1872 to 686,974 in 1881, to 764,461 in 1891, and to 854,533 in 1901. The increase during the last decade, which was 11·8 per cent. for the whole District, was greatest in the Bārind, which is still sparsely populated, and in Dhunot, already the most crowded *thāna* in the District. The climate is fairly healthy, except along the banks of the moribund Karatoyā river, and in the towns of Bogra and Sherpur, where malaria is very prevalent. The increase in Pānchbībi is largely due to the immigration of Santāls and Mundās, known locally as Bunās, from the Chotā Nāgpur plateau; there is also a considerable influx from Nadiā, Sāran, and the United Provinces. The vernacular spoken is Bengali.

Population.

Hindus number 154,131, or 18 per cent. of the population, and Muhammadans 699,185, or 82 per cent., a higher proportion than in any other District in Bengal. The Muhammadans are mostly Shaikhs, though there are also Jolāhās, Kulus, Pathāns, and Saiyids. With the exception of the two last-named communities, which number 5,000, the great majority are probably the descendants of converts from the Koch or Rājbansis of North Bengal, who are the most numerous (30,000) of the Hindu castes in the District. The fact that conversion

to Islām has taken place on a large scale seems to be shown by the number of villages which bear Hindu names, but have no Hindu inhabitants. No less than 748,100 persons, or 87·5 per cent., are dependent on agriculture, while of the remainder 6·4 per cent. are supported by industries, 0·4 by commerce, and 1·1 by the professions.

A brotherhood of Christians professing to belong to no established Church has recently settled at Bogra, but has not yet been successful in making conversions.

Agriculture.

The east of the District, especially the densely populated Dhunot *thāna*, is low, and receives annual deposits of silt from the floods which cover it; the soil is friable and grows excellent crops of jute. Very similar conditions prevail in Sibganj and Shāriākāndi, where, however, jute is less extensively grown. The part of the Bogra *thāna* to the east of the Karatoyā contains a large area of permanent marsh in the low tracts between and at a distance from the larger watercourses, whose beds have been raised by deposits of silt. The *thānas* of Khetlāl and Adamdīghi, west of the Karatoyā, are extensive plains noted for the production of the finer kinds of rice. In Pānchbībī the jungles are being gradually cleared by migratory Santāls and Mundās, who move on as soon as rent is demanded, leaving the land they have reclaimed to be occupied by settled cultivators; recently, however, a large number have settled permanently in this tract. In 1903-4 the net area cropped was estimated at 728 square miles, while 153 square miles were cultivable waste.

Rice is the staple food-crop; the winter rice, which is the most important harvest, is sown on low lands in June, July, and August, and reaped in November and December. Jute is, after rice, the most important product; and the rapid growth of the jute trade in recent years has done much to enrich the inhabitants of the Dhunot, Shāriākāndi, and Sibganj *thānas*, where it is chiefly grown. Sugar-cane is almost confined to Pānchbībī and Sibganj. Oilseeds are grown in the east of the District, as also pulses and a little tobacco.

The cultivated area is being gradually extended, especially in the Bārind. Mulberry cultivation, which had almost entirely disappeared, has recently received some encouragement from the District board, and strips of raised land near Bogra town have been planted with it. Agricultural experiments have been conducted in the Jaypur Government estates, and Patna potatoes and Cooch Behār tobacco have been introduced. Owing to the fertility of the soil and the prosperity of the people, there is generally little need for loans under the Land Improvement and Agriculturists' Loans Acts; but Rs. 2,000 was advanced in 1897, when there was some slight scarcity.

The local cattle are small, but a few buffaloes and large Bihār bullocks have been imported. There are no regular pastures, and

there is considerable difficulty, especially during the rains, in providing food for cattle in the flooded tracts. At the Jāmtali-Rukindirpur fair, held about the middle of January, agricultural produce is exhibited for prizes. This fair was started in connexion with the Jaypur Government estates, but has not been very successful, and it is proposed to remove it to the head-quarters station. None of the other twenty-eight fairs calls for special mention.

There is no general system of irrigation, but after the rice harvest a few cultivators take advantage of tanks or pools to irrigate their fields for a spring crop.

Trade and communications.

Industries are insignificant. Silk-weaving, once prosperous, has decayed owing to the prevalence of silkworm epidemics, and is now practised only by a few families near Bogra town; but efforts are being made by the Bengal Silk Committee, assisted by Government, to exterminate these diseases. Cotton-weaving is carried on by Muhammadans, but this also is a decadent industry.

Rice and jute form the principal exports, and next to them come hides. HILLI, on the main line of railway, is an important centre for the export of rice and jute, and a large quantity of produce is also conveyed by the newly opened branch line from Sāntāhār to Phulcharī, which passes through the marts at Adamdīghi, Sukhānpukur, and Sonātalā. Other marts for rice are Dupchānchia and Burīganj on the Nāgar river, Sultānganj on the Karatoyā, and for jute Shāriākāndi, Naokhilā, Gosainbāri, and Dhunot. The jute is conveyed by boats along the numerous water-channels which intersect this part of the District and converge on SIRĀJGANJ, where it is baled for export. Most of the imports come from Calcutta, and comprise European piece-goods, gunny-bags, salt, and kerosene oil; tobacco is also imported from Rangpur. The largest trading castes are Telis and Sāhās, and the Mārwāris are increasing in number.

Bogra is well served by railways. The northern section of the Eastern Bengal State Railway (metre gauge) traverses the west of the District from south to north, and is protected by an embankment from the floods of the Jamunā. The Brahmaputra-Sultānpur Railway branches off at Sāntāhār, and, after passing through Bogra town, turns north-east and strikes the Brahmaputra at Phulcharī in Rangpur District. Including 46 miles of village roads, the District contains 384 miles of roads, all unmetalled; they are either bridged or possess ferries where they cross the rivers. The most important are those linking Bogra with Rangpur, Dinājpur, Sirājganj, Nator, and Sultānpur.

In the east of the District the rivers form the chief means of communication. The Brahmaputra and the Bangāli are navigable throughout the year, and the Karatoyā and the Nāgar are navigable by small boats

up to the end of November. Numerous steamers ply on the Brahmaputra from Goalundo to Assam, and traffic by country boat is brisk everywhere. There are 24 ferries; the most important are those at Mahāsthān, Nāngla Bara Bīl, Jamālganj, and Fateh Alī.

Famine.

Bogra is not liable to famine; but in 1866, and again in 1874, some distress was caused by high prices, and relief operations were necessary.

Administration.

There are no subdivisions. The executive control is vested in a Magistrate-Collector, who is assisted by four Deputy-Magistrate-Collectors. The administrative head-quarters are at BOGRA town, but one of the Deputy-Collectors is stationed at Khanjanpur and is manager of the Jaypur Government estates.

There are two Munsifs, with power to try suits up to the value of Rs. 1,000. For civil and criminal justice Bogra is amalgamated with Pābna, and the Sessions Judge of that District pays quarterly visits to Bogra. Land disputes are responsible for the majority of the criminal cases.

The revenue history presents no features of interest. The Joint-Magistrate of Bogra, who had been appointed in 1821, was vested with the powers of a Deputy-Collector in 1832, and ordered to collect the revenue of certain estates within his magisterial jurisdiction; but it was not until 1859 that he was raised to the status of Magistrate-Collector. The subsequent revenue history of Bogra is merely a narrative of interchanges of estates between Bogra and the neighbouring Districts, which have gone on up to the present time. The current land revenue demand in 1903-4 was 4·91 lakhs, payable by 706 estates, all permanently settled with the exception of two Government estates paying Rs. 58,000. The incidence of the revenue is R. 0-12-1 on each cultivated acre, and is equivalent to 24 per cent. of the rental. The rent per acre for rice land in the clay soil in the west varies from Rs. 6 to Rs. 15, and in the low land in the east from Rs. 9 to Rs. 15. The rate for jute land varies from Rs. 9 to Rs. 15 in the west, and from Rs. 9 to Rs. 21 in the east of the District, while for special crops, such as *pān* (*Piper Betle*), as much as Rs. 30 per acre is paid. Some under-ryots hold lands under the *chukāni* system, paying a fixed quantity instead of a fixed proportion of the produce. The only estates which have been brought under survey and settlement are the Jaypur Government estates. An area of 22,223 acres was settled with 5,969 ryots for Rs. 51,068, the average area of a ryot's holding being 3·9 acres and the assessment Rs. 2-4-9 per acre. The highest rates assessed were Rs. 4-8 for low and Rs. 3-12 for high lands, and the lowest rates were 12 annas for high and 8 annas for low lands; the rates paid by under-ryots were, however, much higher.

The following table shows the collections of land revenue and total revenue (principal heads only), in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	4,60	5,03	4,90	4,92
Total revenue . .	6,44	7,88	8,62	8,96

Outside the municipalities of BOGRA and SHERPUR, local affairs are managed by the District board. In 1903-4 the income of the District board was Rs. 1,09,000, of which Rs. 51,000 was derived from rates; and the expenditure was Rs. 1,04,000, including Rs. 67,000 expended on public works.

The District contains 8 *thānas* or police stations and 3 outposts. The police force under the District Superintendent consisted in 1903 of 2 inspectors, 20 sub-inspectors, 15 head constables, and 166 constables, in addition to 26 town *chaukīdārs*. The rural police force is composed of 1,641 *chaukīdārs* and 149 *daffadārs*. The District jail at BOGRA has accommodation for 127 prisoners.

The great majority of the population are illiterate, only 5 per cent. of the total (9·6 males and 0·3 females) being able to read and write in 1901. A considerable advance has, however, been made in recent years. The total number of pupils under instruction increased from 3,540 in 1881-2 to 11,819 in 1892-3 and to 16,335 in 1900-1, while 18,130 boys and 617 girls were at school in 1903-4, being respectively 27·6 and 1 per cent. of those of school-going age. The number of educational institutions, public and private, in that year was 495, including 34 secondary, 425 primary, and 36 special schools. The expenditure on education was Rs. 79,000, of which Rs. 7,000 was met from Provincial funds, Rs. 18,000 from District funds, Rs. 700 from municipal funds, and Rs. 40,000 from fees.

In 1903 the District contained 9 dispensaries, of which 3 had accommodation for 26 in-patients. At these the cases of 53,000 out-patients and 227 in-patients were treated during the year, and 1,676 operations were performed. The expenditure was Rs. 13,000 and the income Rs. 14,000, of which Rs. 1,900 was met from Government contributions, Rs. 6,000 from Local and Rs. 1,300 from municipal funds, and Rs. 5,000 from subscriptions.

Vaccination is compulsory only in the two municipalities. It is not popular with the illiterate Muhammadan community, but their opposition to it is yearly becoming weaker. In 1903-4 the number of successful vaccinations was 25,000, or 30 per 1,000 of the population.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. viii (1876); S. S. Day, *Final Report on the Survey and Settlement of the Jaypur Estates* (Calcutta, 1899).]

Bogra Town (*Bagurā*).—Head-quarters of Bogra District, Eastern Bengal and Assam, situated in 24° 51′ N. and 89° 23′ E., on the west bank of the Karatoyā river. Population (1901), 7,094. Bogra was constituted a municipality in 1876. The income during the decade ending 1901–2 averaged Rs. 15,000, and the expenditure Rs. 14,000. In 1903–4 the income was Rs. 21,000, of which Rs. 4,000 was derived from a tax on persons (or property tax) and Rs. 6,000 from a conservancy rate; and the expenditure was Rs. 16,000. The Brahmaputra-Sultānpur branch of the Northern Bengal State Railway passes through the town. Bogra possesses the usual public buildings, and a park, containing a theatre, has recently been laid out. The District jail has accommodation for 127 prisoners, the chief jail industry carried on being the preparation of bamboo matting.

Bokpyin.—Township of Mergui District, Lower Burma, lying on the mainland, between 10° 35′ and 11° 51′ N. and 98° 27′ and 99° 14′ E., and including islands extending to 97° 54′ E. Its area, with the islands, is 2,103 square miles. The township is a mass of forest-clad hills with a fringe of mangrove swamps on the sea, widening out at the estuary of the Lenya river, which flows through rocky gorges with occasional narrow strips of level land. Along the coast is an immense shoal, almost bare at low tide, which makes it impossible for steamers of any but the smallest size to approach the head-quarters. Farther south, however, there is a good anchorage at Karathuri, a tin-mining centre. About 40 miles from Bokpyin, in clear waters among wooded isles with sandy beaches, are the pearling-grounds. The population was 5,749 in 1891, and 7,255 in 1901, of whom 18 per cent. were returned as speaking Burmese, 9 Karen, 53 Siamese, and 20 Malay and other languages. The Malays and most of the Burmans live along the coast, the Siamese inland on the watercourses, and the Karens in the hills. The tin-mines are worked mostly by Chinese labour. The islands are uninhabited, save for the roving population of Salons. There are 63 villages and hamlets. The head-quarters are at Outer Bokpyin, a forlorn-looking village with a population of 387. The area cultivated in 1903–4 was 9 square miles, of which about two-thirds was under rice and the rest orchards or palm groves. The land revenue amounted to Rs. 7,800.

Bolān Pass.—A District of Baluchistān, named after the historic pass, lying between 29° 24′ and 30° 10′ N. and 67° 4′ and 67° 44′ E., with an area of 896 square miles. The pass proper extends from Kolpur, known to the natives as Kharlakai Kotal, to Rindli, and is about 54 miles long. It is widest in the Laleji plain on the south, whence it narrows to a gorge known as Afghān Ponzak. The elevation rises from 750 feet to about 5,900 feet. The District is bounded on the east by Sibi District, and on its remaining sides by the Sarawān

and Kachhi divisions of the Kalāt State, and is enclosed between high mountains belonging to the CENTRAL BRĀHUI range. The Bolān river rises near Kolpur, but the water makes its first appearance at Sar-i-Bolān and disappears again near Abigum. At Bībī Nāni it is joined from the west by the Sarawān river, and from this point possesses a perennial stream. Many hill-torrents empty themselves into the river, causing violent floods after heavy rain.

The rocks consist of a varied series, including Jurassic and Lower and Upper Cretaceous strata; basalt flows of Deccan trap age; Ghāzij and Spīntangi beds (middle eocene); lower Nāri (upper eocene); lower, middle, and upper Siwāliks (middle and upper miocene); and recent and sub-recent deposits.

The vegetation consists of a repellent scrub, made up of such plants as *Capparis aphylla*, *Acanthodium spicatum*, *Prosopis spicigera*, *Withania coagulans*, *Calotropis procera*, *Alhagi camelorum*, and three kinds of *Acacia*. On the surrounding hills occur pistachio and a little olive.

Sīsī and *chikor* are found in the upper parts of the pass, and a few hares and 'ravine deer' (gazelle) occur in the Laleji plain. Fish exceeding 20 lb. in weight have been caught with the rod in the lower reaches of the Bolān river.

The climate varies with the elevation. In summer the heat in the lower parts is trying, while in winter snow falls above Mach. The annual rainfall averages about 8 inches. Most of it is received in winter, but an occasional fall occurs in July.

The Bolān Pass has for centuries been the route which traders, invaders, and nomad hordes have traversed between India and High Asia, and has been the scene of many battles between the people of the highlands and of the plains. In the early days of the British connexion with the country it was nominally under the control of the Khān of Kalāt; but the Kūrd and the Raisāni tribes had acquired rights to levy transit-dues, and it was a favourite raiding ground of the Marris and Kākars. The army of the Indus negotiated the pass without much opposition in 1839, and it was again traversed by the army for Southern Afghanistān in 1878.

In pursuance of the policy of freedom of trade between Kalāt and India, posts were established in the pass soon after the British occupation in 1877; and in 1883 the Khān of Kalāt ceded civil and criminal jurisdiction in the pass and his rights to levy tolls, in return for an annual payment of Rs. 30,000. The tolls were abolished in 1884, and allowances were given to the Raisāni, Kūrd, and other tribesmen who had shared in the proceeds of the transit dues. The Bolān was first attached to the old Thal-Chotiāli District; it was then placed under Quetta-Pishīn; and finally, in 1888, under the Political Agent in Kalāt.

The District possesses only two permanent villages of any size,

Mach and Kirta. The total population in 1901 was 1,936. The Kuchiks, a section of the Rind Baloch numbering 326, are the cultivating proprietors of the soil. The total area of cultivable land is 3,300 acres, about one-third of which is generally cropped each year. Most of the cultivation is at Kirta, which is irrigated from the permanent stream of the Bolān. The water and land are divided for each crop according to the number of adult males among the Kuchiks. The principal crop is wheat; some *jowār* also is cultivated in the summer.

Thin seams of coal in the Ghāzij strata near Old Mach are worked by a private firm. The output in 1903 amounted to 3,259 tons. In the spring of 1889 a boring for petroleum was put down near Kirta, and a show of oil was struck at 360 feet, but the boring was abandoned owing to an influx of hot sulphurous water. Good sulphur has also been discovered. No trade of importance exists. The Mushkāf-Bolān branch of the North-Western Railway enters the District at Nāri Bank station; and a road traverses the pass connecting Sibi with Quetta, which is metalled and bridged between Rindli and Quetta.

The District, which is officially known as the Bolān Pass and Nushki Railway District, forms part of the Agency Territories. Besides the pass and the civil station of Rindli, it includes jurisdiction over the road and railway from the Nāri river to a point within about 13 miles of Quetta, and over the portion of the Nushki Railway lying in Kalāt. The Political Agent, Kalāt, holds executive charge and has the powers of a District and Sessions Judge. The Assistant Political Agent, Kalāt, and the Native Assistant for the Sarawān country also have jurisdiction. The official in immediate charge of the pass is a *tahsīldār*, posted at Mach, who exercises civil and criminal powers. In 1903 the number of cognizable cases reported was 15, in 7 of which convictions were obtained. The number of criminal cases was 45, and of civil cases 182. Land revenue at the rate of one-tenth of the produce was first levied in 1891, but the rate has since been raised to one-sixth. The land revenue in 1903–4 yielded Rs. 4,700, and the total revenue of the District from all sources was Rs. 9,500.

A small sum is raised by a conservancy cess in the Mach bazar, and is spent on sanitation. In 1903–4 the receipts amounted to Rs. 1,100, and the expenditure to Rs. 900. The sanctioned strength of the levy force is 208 men, of whom 113 are employed in the pass, the remainder being detailed with the Political Agent, Kalāt, and elsewhere. The police force, which numbers 39 men under two deputy-inspectors, is posted at eight railway stations and forms part of the Quetta-Pishīn police. No schools have been established. About 27 pupils receive instruction in mosques.

A dispensary, maintained at Mach by the North-Western Railway, affords medical aid to the civil population. It has accommodation for

13 in-patients. The total attendance in 1903 numbered 3,675. Vaccination has not been introduced.

Bolārum.—Formerly a cantonment of the Hyderābād Contingent, and now part of SECUNDERĀBĀD, Hyderābād State.

Bolpur.—Village in the head-quarters subdivision of Bīrbhūm District, Bengal, situated in 23° 40′ N. and 87° 42′ E., on the East Indian Railway, 99 miles from Howrah. Population (1901), 3,131. Bolpur is the most important trading centre in the District.

Bolundra.—Petty State in MAHĪ KĀNTHA, Bombay.

Bombay Presidency.—Bombay, the Western Presidency of British India, is divided into four revenue Divisions and twenty-five[1] Districts. It also includes numerous Native States. The territory thus composed extends from 13° 53′ to 28° 29′ N. and from 66° 40′ to 76° 32′ E. The British Districts, including Sind, contain a total area of 122,984 square miles and a total population (according to the Census of 1901) of 18,515,587; the Native States under the Bombay Government cover an additional area estimated at 65,761 square miles, with a population of 6,908,648; total area, 188,745 square miles; total population, 25,424,235 In the geographical limits of the Presidency are included the Portuguese Possessions of Goa, Damān, and Diu, with an aggregate area of 1,470 square miles and a population (1900) of 531,798; also the State of Baroda, with an area of 8,099 square miles and a population of 1,952,692, which is under the political control of the Government of India. The outlying settlement of Aden has an area of 80 square miles, with a population of 43,974. The capital of the Presidency, to which it has given its name, is BOMBAY CITY, situated on an island on the shore of the Arabian Sea in 18° 55′ N. and 72° 54′ E.

The Presidency is bounded on the north-west, north, and north-east by Baluchistān, the British Province of the Punjab, and the Native States of Rājputāna; on the east by the Native States of the Central India Agency, the Central Provinces, Berār, and the Dominions of the Nizām of Hyderābād; on the south by the Presidency of Madras and the State of Mysore; and on the west by the Arabian Sea.

Physical aspects.

Between these limits are contained tracts of country varying greatly in climate and physical aspects. Of these, the most important are Sind, Gujarāt, the Deccan, the Konkan, and the Carnatic. The District of North Kanara, at the extreme south of the Presidency, in so far as it can be brought within this scheme of division, lies partly in the Carnatic and partly in the Konkan.

[1] This total includes Bombay City and Island, which is treated as a separate District under a Collector, but does not include the new District formed in 1906 by the partition of Khāndesh.

Sind, or the lower valley of the Indus, is the most northerly section of the Presidency. It includes the six Districts of Karāchi, Hyderābād, Thar and Pārkar, Lārkāna, Sukkur, and the Upper Sind Frontier; and also the Native State of Khairpur. It differs widely in physical features and climate, no less than in the language, dress, and customs of its inhabitants, from the rest of the Presidency, from which it is cut off by the desert or the sea. Cultivation in Sind is, as a rule, possible only where irrigation exists, and the province is thus dependent on the annual inundation of the Indus with its subsidiary system of canals. The surface of the land is a monotonous desert, interrupted by low cliffs or undulating sand-heaps, save only where the floods of the great river, or the silver streak of a canal, have transformed a waste of sand and scrub jungle into broad acres of smiling crop. Flat and arid for the most part, Sind possesses an indescribable charm in its wide expanse of reed and water, where the floods lie held from the adjacent crops by giant banks of earth, and the silence is broken only by the cries of myriads of wild-fowl on the wing.

In striking contrast to the Sind desert, the plains of Gujarāt stand first in the Presidency for richness of soil and density of population. They are watered by many rivers, the most famous of which are the Narbadā and the Tāpti, whose valleys are sheets of unbroken cultivation. Towards the Rann of Cutch the rich plains pass into salt and sandy waste, and the subsoil is brackish. Gujarāt contains the Districts of Kaira, Ahmadābād, Broach, Surat, and the Pānch Mahāls, with numerous petty Native States, of which the most important are Cutch, Morvi, Gondal, and Bhaunagar, situated in Cutch and the peninsula of Kāthiāwār. Of these, Cutch is an island lying between 22° 47′ and 24° N. and 68° 25′ and 71° 11′ E., cut off from the mainland by the great salt waste known as the Rann. Kāthiāwār is a peninsula lying between 20° 48′ and 23° 45′ N. and 68° 56′ and 72° 20′ E. It is connected with the mainland of Gujarāt by a neck of low-lying land which until 1813 was flooded during part of the year, and is still partly covered by a large lagoon, the Nal. The State of Baroda, though contained within this geographical division, is not now politically attached to the Bombay Presidency.

The remaining portion of the Presidency is divided into high and low-level tracts by the rugged line of the Western Ghāts or Sahyādris which run parallel to the coast-line for many hundred miles. Perched upon these frowning eminences stand the hill forts famous in Marāthā history. Behind them lie the scantily watered tracts of the Deccan plateau, for the most part an almost treeless plain, sloping from the rock-bound Ghāt edge towards the level fields of Berār and Hyderābād. Protected by the hills from the south-west monsoon, which at times surmounts their crest only to hurl its heavy clouds across

the continent, leaving the land unwatered and untilled, the Deccan yields to much labour a bare measure of subsistence. In the valleys of the large rivers, where population clusters on the banks in busy townships, the soil is more productive; but the country is ever haunted by the spectre of famine. It breeds a race of sturdy husbandmen, who show a marked superiority over their Gujarāt brethren in their powers of resisting the rigours of a starvation diet. The Deccan Districts are Nāsik, Ahmadnagar, Poona, Sātāra, and Sholāpur. The Native States included in this area are few and unimportant. To the north of Nāsik, Khāndesh, in the Tāpti valley, is usually excluded from the Deccan as being more akin to the plains of the Central Provinces and Berār, especially in its rich fields of black cotton soil, growing excellent cotton and wheat. The Deccan possesses large tracts of rocky and uncultivable land. To the west, near the Ghāts, where the rainfall is heavy, the main crop is rice, grown in terraces in the broken country known as the Konkan Ghāt Mātha or Māval. Over the greater part of the *desh*, or level tracts, a light rainfall, if seasonable, produces good crops of cereals.

South of the Deccan, three Districts, Belgaum, Bijāpur, and Dhārwār, form the Bombay Carnatic, or Kanarese territory. The large Native State of Kolhāpur also forms part of the Carnatic, which is otherwise known as the Southern Marāthā Country. Owing to the edge of the Ghāts being thickly wooded to the west of these Districts, they enjoy a better water-supply than the arid Deccan plain farther north, and are also able to reckon on a more certain rainfall. In Dhārwār District a system of numerous small tanks for water storage permits the cultivation of irrigated crops on a large scale. The greater portion of the above-Ghāt section of North Kanara District is covered with continuous forest. The Carnatic is thus a land of sweeping forest and well-watered fields, bearing rice crops beneath the storms of the Ghāt rainfall, and yielding a sea of wheat, cotton, and *jowār* beyond the zone of the monsoon's fury. Though the Western Ghāts are here covered with dense jungle, their line is more broken than in the Deccan, so that the rivers, which elsewhere flow eastward across the continent, sometimes turn towards the western coast-line in the Southern Carnatic.

The low-lying tract below the Ghāts, termed the Konkan, contains the Districts of Thāna, Kolāba, Ratnāgiri, Bombay City and Island, the below-Ghāt section of North Kanara, and the Native States of Sāvantvādi, Janjīra, and Jawhār. It is a difficult country to travel in, for in addition to rivers, creeks, and harbours, there are many isolated peaks and detached ranges of hills. Thus, in north-east Thāna the Deccan trap forms a high table-land, which passes southwards in a series of abrupt isolated hills to the bare flat laterite plateau of Ratnāgiri. The granite and sandstone hills of North Kanara are

locally reckoned as distinct from the main range of the Western Ghāts, and the large proportion of forest it contains distinguishes below-Ghāt Kanara from the rest of the Konkan. The cultivation consists of a few rich plots of rice land and groves of coco-nut palms, watered by a never-failing supply from the storm-clouds of the south-west monsoon. Though in climate severely oppressive, when the sun adds its power to the enervating influence of the moisture-laden atmosphere, yet the Konkan is unrivalled for beauty of scenery.

The peculiarities of soil, climate, and conformation thus briefly described result in a great variety of scenery. In Sind the eye of the traveller, fatigued by endless stretches of sand and scrub jungle, rests with relief on the broad expanse of the lagoons rich in waving reed and clustering *babūl*. In Gujarāt the sandy waste of Cutch leads through the treeless, if more fertile, plain of Kāthiāwār to the well-cropped fields of the central Districts: a park-like territory intersected at intervals by the broad floods of its rivers, and well wooded, with many a noble tree to shade the approaches to its busy and populous towns. This is the garden of the Presidency. The approach to the Deccan plateau is guarded by the long line of the Western Ghāts. Though smiling with fern and foliage and glistening with the silver threads of numerous waterfalls during the summer rains, their rugged crests are, in the dry season, left gaunt and bare save when robed in purple in the haze of early morn, or touched to brilliance by the last rays of the setting sun. Beyond the Ghāt edge, broken country slopes to a vast treeless expanse, undulating between great stretches of rock or boulder and poorly tilled patches of cultivation. South of the Deccan the well-watered fields of the Carnatic lead to the giant forests of Kanara, which are to be seen at their best near the magnificent GERSOPPA FALLS. Vistas of rolling hills clad with evergreen forest stretch everywhere to the limit of the horizon. Beyond the evergreen zone, dense patches of tall teak and feathery bamboo line the valleys of perennial streams, where clumps of screw-pine catch the broken lights that penetrate the leafy canopy. The scenery is of rare beauty at all seasons of the year, whether half hidden and half revealed in the driving mists of the monsoon, or pierced by the shafts of the hot-season sun in the mysterious silence of an April noon. Yet before all in picturesqueness are the coast tracts of the Konkan, where sparkling rollers break on soft white sand beneath overhanging palm and grey-green casuarina; red-rocked islets and promontories lie in the broad bosom of a light blue sea; the flaming leaf of the gold-mohur tree in hot-season foliage offers a beacon by day to guide the quaintly moulded native craft on their coastwise journeys; and in the background the long grey line of the eternal hills send streamlet and broad river alike to mingle their floods with the depths of the Indian Ocean.

The following are the chief mountain ranges, which all have a general direction from north to south. In the north-west, on the right bank of the Indus, the Kīrthar mountains, a continuation of the great Sulaimān range, separate British India from the domains of the Khān of Kalāt. In Sind there are low ranges of sandhills, and in Cutch and Kāthiāwār several isolated peaks and cliffs, which form geologically a continuation of the Arāvalli mountains. Proceeding towards the south-east, an extensive mountain chain is met with, which may be regarded either as a southern spur of the Arāvallis or a northern prolongation of the Western Ghāts beyond the valleys of the Tāpti and Narbadā. These hills separate Gujarāt from the States of Central India, beginning in the neighbourhood of Mount Abu and stretching southwards down to the right bank of the Narbadā. South of the Tāpti the country becomes rugged and broken, with isolated masses of rock and projecting spurs, forming the watershed for the great rivers of the Deccan. This rugged region constitutes, strictly speaking, the northern extremity of the WESTERN GHĀTS, here called the Sahyādri Hills. That great range runs southward, parallel to the sea-coast for upwards of 1,000 miles, with a general elevation of about 1,800 feet above the sea, though individual peaks rise to more than double that height. The western declivity is abrupt, and the low strip of land bordering the sea-shore is seldom more than 40 miles in width. The Ghāts do not often descend in one sheer precipice, but, as is usually the case with a trap formation, the descent is broken by a succession of terraces. The landward slope is gentle, also falling in terraces, the crest of the range being in many cases but slightly raised above the level of the central plateau of the Deccan. Apart from minor spurs of the Western Ghāts, only two ranges in the Presidency have a direction from east to west. The SĀTPURĀ range, from the neighbourhood of the fort of Asīrgarh to its termination in the east of Gujarāt, forms the watershed between the Tāpti and Narbadā rivers, separating Khāndesh from the territories of Indore, and attaining an elevation of over 5,000 feet. The SĀTMĀLA or Ajanta hills, which divide Khāndesh from the Nizām's Dominions on the south, are of less importance, being rather the northern slope of the plateau of the Deccan than a distinct hill range.

The Bombay Presidency has no great rivers which it can call its own. The outlying province of Sind is penetrated throughout its entire length from north to south by the INDUS, whose overflowing waters are almost the sole means of distributing fertility through that parched region. Its season of flood begins in March and continues until September; the discharge of water, calculated at more than 40,000 cubic feet per second in December, is said to increase tenfold in August, the average depth of the river rising during the inundation from 9 to 24 feet, and the velocity of the current increasing from 3 to 7 miles an hour. The

entire lower portion of the delta is torn and furrowed by old channels of the river, for the surface is a light sand easily swept away and re-deposited year by year. The plains of Northern Gujarāt are watered by a few small streams, the chief of which are the Sābarmatī and Mahī, both rising in the Mahī Kāntha hills and flowing southward into the head of the Gulf of Cambay. The NARBADĀ, in its westerly course to the sea from Central India, has but a short section within the limits of the Presidency. It separates the territory of Baroda from Rewā Kāntha, and, after passing the city of Broach, falls into the Gulf of Cambay by a noble estuary. For about a hundred miles from the sea it is navigable at all seasons by country boats, and during the rains by vessels of 50 tons burden. The TĀPTI, although a smaller river, has a greater commercial importance. It flows through the whole length of Khāndesh and enters the sea a little above the city of Surat. Both these rivers run for the most part between high banks, and are of little use for irrigation. Passing southwards, the hill streams which rise in the Western Ghāts and flow west into the Arabian Sea are very numerous but of little importance. During the rains they become formidable torrents, but in the hot season they dwindle away and almost cease to flow. In the lowlands of the Konkan their annual floods have worn deep tidal creeks, which form valuable highways for traffic. In the extreme south of the Presidency, in the District of North Kanara, these westward-flowing streams become larger; one of them, the Sharāvati, plunges downwards from the mountains in the celebrated Falls of GERSOPPA. On the eastern side of the Ghāts are the head-waters of both the GODĀVARI and KISTNA (Krishna) rivers, the former of which rises near Nāsik and the latter near Mahābaleshwar. Both of these, after collecting the waters of many tributary streams, some of considerable size, leave the Presidency in a south-easterly direction, crossing the entire plain of the Deccan on their way to the Bay of Bengal.

The most peculiar natural feature in the Presidency is the RANN OF CUTCH. Authorities have not yet decided whether it is an arm of the sea from which the waters have receded, or an inland lake whose seaward barrier has been swept away by some natural convulsion. It covers an estimated area of 9,000 square miles, forming the western boundary of Gujarāt; but when flooded during the rainy season, it unites the two gulfs of Cutch and Cambay, and converts the peninsula of Cutch into an island. In the dry season the soil is impregnated with salt, the surface in some places being moist and marshy, and in others strewn with gravel and shingle like a dry river-bed or sea-beach. At this time the Rann is frequented by numerous herds of antelope, the 'black buck' of sportsmen. Large tracts of marshy land are to be found in Sind, caused by changes in the course of the Indus. The MANCHHAR LAKE, on the right bank of the river, near the town of Sehwān,

is swollen during the annual season of inundation to an area of about 160 square miles; and a large portion of the newly formed delta has not yet been fully reclaimed from the antagonistic forces of the river and the sea. Along the coast of the Konkan the low-lying lands on the borders of the salt-water creeks are liable to be overflowed at high tide. Several artificial sheets of water may, from their size, be dignified with the title of lakes; of these the chief are the Tānsa lake, constructed to provide Bombay City with water, and the Gokāk lake in Belgaum. The former has an area of about 3,400, and the latter of 4,000 acres. Another sheet of water, the Kharakvāsla tank, intended to supply the city of Poona, and also to irrigate the neighbouring fields, covers an area of 3,500 acres.

There are numerous small islands scattered along the coast, few of which are inhabited or of any importance. The noteworthy exceptions are CUTCH, SALSETTE, and BOMBAY. These are separated from the mainland by creeks of salt desert or tidal mud. An island of historic interest, as being one of the first places on the coast known to the ancients, is ANJIDIV, situated a few miles from the port of Kārwār, and since 1505 a Portuguese possession.

Though the Presidency coast-line contains many estuaries forming fair-season ports for vessels engaged in the coasting trade, Bombay, Karāchi, and Kārwār alone have harbours sufficiently landlocked to protect shipping during the prevalence of the south-west monsoon. The coast-line is regular and unbroken, save by the Gulfs of Cambay and Cutch, between which lies the peninsula of Kāthiāwār. There are 69 lighthouses in the Presidency, of which the chief are Manora Point at Karāchi, visible for 20 miles; the Prongs and Khānderi lights at Bombay, visible for 18; and the Oyster Rock light at Kārwār, visible for 20 miles. The Aden light can be seen for 20 miles.

From a geological point of view, the rocks forming the Bombay Presidency can be classified in the following divisions: (1) A group of very ancient rocks, partly crystalline and partly sedimentary. These include, firstly, a variety of granitic and gneissose rocks which occur in the southern Districts (Dhārwār, Kanara, Belgaum) where they are closely compressed into complicated folds, together with some highly metamorphosed stratified rocks called the 'Dhārwār series' with which they are intimately associated; they are also found in parts of Rewā Kāntha and the Pānch Mahāls. Secondly, younger stratified deposits known under various local names, such as Kalādgi, Bhīma, Chāmpāner. These have usually undergone a very moderate degree of disturbance and metamorphism as compared with the highly altered older strata upon which they rest unconformably; they are completely unfossiliferous, and are almost entirely older than the Cambrian. (2) An immense accumulation of volcanic rocks, principally basaltic lavas, known as the

'Deccan trap.' This is the most important geological formation in the Bombay Presidency, covering almost entirely the region included between the 16th and 22nd parallels of latitude, together with the greater part of the Kāthiāwār peninsula and a large portion of Cutch. (3) A series of fossiliferous marine and fluviatile strata extending in age from middle Jurassic to upper Miocene or lowest Pliocene. They are best developed in the northern part of the Presidency, and include strata belonging to, firstly, the middle oolite (Cutch); secondly, the lowest Cretaceous (Umia beds of Cutch and Kāthiāwār); thirdly, the upper Cretaceous (Lameta and Bagh series of the lower Narbadā region); fourthly, the Eocene (Nummulitic limestones and associated rocks of Surat, Cutch, and Sind); fifthly, Oligocene and Miocene (Upper Nāri, Gaj, and Manchhars of Sind, Cutch, and Kāthiāwār). (4) Ossiferous gravels and clays of the Tāpti and Godāvari valleys, with fossil remains of extinct mammalia of upper Pliocene or lower Pleistocene age. (5) Recent accumulations forming the plains of Sind and Gujarāt and the Rann of Cutch.

The geological literature of Bombay is very extensive. Some of the most important works have been published in the *Memoirs of the Geological Survey of India*, among which may be mentioned the geological descriptions of Sind by Dr. W. T. Blanford (vol. xvii), of Cutch by A. B. Wynne (vol. ix), of Kāthiāwār by F. Fedden (vol. xxi), of the Deccan trap and the Narbadā and Tāpti valleys by Dr. Blanford (vol. vi), and of the South Marāthā Country by R. B. Foote (vol. xii). The Dhārwār series, the chief auriferous series in South India, has also been described by R. B. Foote in vols. xxi and xxii of the *Records of the Geological Survey*. Most of the fossils from the Presidency have been described in various volumes of the *Palaeontologia Indica*.

The Presidency can be distributed into the following botanical provinces: Sind, Gujarāt (including Kāthiāwār), Khāndesh, Deccan, Southern Marāthā Country (including the greater part of Belgaum, Bijāpur, and Dhārwār Districts), Konkan, and Kanara. There are no absolute boundaries to these divisions, but each, in a certain degree, possesses some characteristic forms of vegetation. By taking the broadest possible view of the subject, the number of provinces may, however, be reduced to five, as Khāndesh can be included in the Deccan, and Kanara may be looked upon as a southern extension of the Konkan.

The flora of Sind, Gujarāt, Khāndesh, and the Deccan is comparatively poor: the commoner trees are those which have been intentionally planted or preserved; the shrubs are often thorny and stunted; the herbaceous plants are mostly represented by weeds of cultivation, but the grasses are of extremely varied forms, and the pastures are luxuriant in the rainy season.

In the tracts of the Southern Marāthā Country, which correspond in configuration to the Deccan but differ in their geological composition, the flora is somewhat more varied; but it is in the Konkan and Kanara, with the adjoining Ghāts, that vegetation is richest in forms. The trees are often lofty; the shrubs are of many different types, frequently growing in impenetrable thickets; while the herbaceous vegetation is, on the whole, scantier than in the more open country above the Ghāts.

Of the plants of the Presidency, only the following orders (detailed in order of importance) contain more than fifty species each: *Leguminosae, Gramineae, Acanthaceae, Compositae, Euphorbiaceae, Cyperaceae, Convolvulaceae, Orchideae, Rubiaceae, Labiatae, Malvaceae*, and *Urticaceae*. There are probably only 2,500 species of flowering plants altogether, and many of these are confined to special tracts and localities, so that, taking into account the extent and diversity of the Presidency, the flora is poor.

The principal timber trees are: teak, found in all forests throughout the Presidency except in Sind; black-wood, of two varieties, *Dalbergia Sissoo* in Sind, and *D. latifolia* in the other parts of the Presidency; *D. ougeinensis* (*tiwas*), found in hill forests throughout the Presidency; *Pterocarpus Marsupium*, called *honne* in Kanara and *bibla* in the Northern Division; *Terminalia tomentosa*, known as *ain* in Marāthī and as *sadara* in Gujarātī; ebony and *poon*, found only in the Southern Division; *babūl* (*Acacia arabica*), attaining to greater size and excellence in Lower and Middle Sind, but found in all parts of the Presidency; *khair* (*Acacia Catechu*), valuable not only for timber and firewood, but also as yielding the extract known as cutch; *Nauclea cordifolia* (*heda*) and *Nauclea parvifolia* (*kalam* in Marāthī, *yetgal* in Kanarese), common in the coast forests, less so inland; *nāna* or *nāndi*, and *bonda* or *bondāra*, two varieties of *Lagerstroemia*; *asana* (*Bidelia spinosa*); *anjan* (*Hardwickia binata*), found only in Khāndesh; *jāmba* (*Xylia dolabriformis*), a hard and durable wood, sometimes called iron-wood; and *bahān* (*Populus euphratica*), soft and of no great size, but the only timber tree which grows in any abundance in Upper Sind. Tamarisk (*Tamarix indica*), though it never attains any size, deserves mention from the very extensive scale on which it is cut by the Forest department in Sind as fuel for steamers on the Indus. Sandal-wood is found in the forests of Kanara. The bamboo, though unknown in Sind, is widely spread throughout the forests of the Northern and Southern Divisions.

The forests also contain many trees which are valuable on account of their fruits, nuts, or berries. Among these are the mango (*Mangifera indica*); the jack (*Artocarpus integrifolia*); the *ber* (*Zizyphus Jujuba*); the *bel* (*Aegle Marmelos*), a valuable remedy in dysentery; the *hirdā* (*Terminalia Chebula*), which yields the myrabolam of commerce; the *undi* (*Callophylum inophyllum*), the seeds of which yield a dark-green

oil; the *mahuā*-tree (*Bassia latifolia*), from the flowers of which spirit is distilled, while the seeds yield a large quantity of thick oil used for making soap in Kaira District, and are also exported; and the *karanj* (*Pongamia glabra*), whose beans yield an oil used not only for burning, but also medicinally in cutaneous diseases.

The palms of the Bombay Presidency are the coco-nut (*Cocos nucifera*); the true date (*Phoenix dactylifera*), very abundant near Sukkur in Upper Sind; the bastard date (*Phoenix sylvestris*), found in the Konkan, Gujarāt, and the Deccan; the palmyra palm (*Borassus flabellifer*), common along the coast; the *bherali* (*Caryota urens*), a mountain palm found on the seaward slopes of the Western Ghāts; and the *supāri* or betel-nut palm (*Areca Catechu*). The fermented sap of the *tād* or palmyra palm is largely used as an intoxicating drink under the name of *tadi* (toddy). Similar drinks are prepared from the sap of the coco-nut and the bastard date palm, and pass by the same name, while the fermented sap of the *bherali* is known as *mādi*. Oil is largely extracted from the kernel of the coco-nut, and coir fibre from the outer husk. The leaves of the coco-nut and palmyra palms are much used in Bombay City and along the coast in the construction of temporary buildings and huts. Coarse matting is made from the leaves of the date palm.

The Presidency contains most of the fruit trees and vegetables common in India. The mangoes of Bombay have a special reputation, and good strawberries are grown at Mahābaleshwar. In Nāsik and Karāchi Districts grapes are successfully cultivated, and Ahmadnagar produces the Cape gooseberry in considerable quantities.

Among the wild animals peculiar to the Presidency may be mentioned the lion of Gujarāt, which zoologists are now disposed to regard as a local variety rather than a separate species; and the wild ass, frequenting the sandy deserts of Cutch and Upper Sind. Leopards are common, but the tiger has retreated before the advance of cultivation, and is now found only in remote jungles. The sloth bear (*Melursus ursinus*) is found wherever rocks, hills, and forests occur; and the bison (*Bos gaurus*) haunts the mountain glades of Kanara. Of deer, the *sāmbar* (*Cervus unicolor*) is found in the same localities as the bison, though in greater abundance; while the *nīlgai* (*Boselaphus tragocamelus*) and the antelope are numerous, especially in Gujarāt. *Chītal* (*Cervus axis*) and the barking-deer (*Cervulus muntjac*) are also common. Small game, such as snipe, quail, partridges, and wild duck, can generally be obtained by the sportsman at the right season in most parts of the Presidency, even within easy reach of the suburbs of Bombay. In 1904 the total number of registered deaths throughout the Presidency caused by wild beasts was only 33, whereas venomous snakes killed 1,129 persons. On the coast and in the big rivers fish

are found in abundance. The chief kinds of sea-fish are the pomfret, sole, mullet, stone-fish, and lady-fish, while the rivers contain mahseer, *maral*, and *palla*.

The rainfall, with the exception of occasional thunderstorms, is confined to the five months between June and November, during which the south-west monsoon strikes the long line of the west coast, to be followed by heavy storms on its retirement in the latter part of this period. Sind is almost rainless, receiving 2 inches of rain in July and August, and less than 2 inches during the remaining ten months, and the temperature is, in consequence, subject to great fluctuations. During the cold months, from October to March, the thermometer falls below freezing-point at night, and the days are of agreeable freshness. In the hot months that follow, the dry heat is intense, reaching a maximum of 126° at Jacobābād. Gujarāt has a more ample rainfall of 20 to 30 inches, with a brisk cold season, and oppressive heat in the summer. The temperature falls on the burst of the south-west monsoon, but the air remains hot and sultry till the approach of the cold season in October. The Konkan tracts receive the full brunt of the monsoon's fury, and have a rainfall of 100 to 150 inches, almost entirely due to the south-west rain current. The air is heavily charged with moisture throughout the year; and the climate, except for a brief period during December, January, and February, is oppressive to those who are not used to it, though the thermometer seldom rises above 96°. In contrast to the Konkan, the Deccan or Districts above the Ghāts receive a moderate rainfall of between 20 and 30 inches, starting with downpour and drizzle from the south-west from June to September, and ending with sharp heavy storms from the north-east in October. In March and April the thermometer readings are high, 108° to 110° being a not unusual maximum; but the air is dry and the heat less oppressive than on the coast. During the monsoon the climate is cool and pleasant, and the cold months, if short, are decidedly bracing. The Carnatic in its western portions enjoys a heavy rainfall, increasing rapidly from 50 to 200 inches as the edge of the Ghāts is approached. To the east, the plain country has a rainfall resembling that of the Deccan, though heavier and more certain. The cold season is agreeable, but of short duration. During the hot season the climate is tempered by westerly breezes from the sea, and extremes of heat are seldom reached.

At the height of the south-west monsoon, floods are not uncommon. The rivers, suddenly filled by many hundreds of streams and hill-side torrents, rise rapidly in their beds, inundating the land on each side for a considerable distance.

The following tables give average statistics of rainfall and temperature:—

Rainfall

Station.	Average rainfall (in inches) for twenty-five years ending with 1901 in												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total of year.
Jacobābād . . .	0·25	0·29	0·17	0·15	0·17	0·08	1·12	1·12	0·11	...	0·14	0·16	3·76
Karāchi . . .	0·61	0·34	0·17	0·22	0·01	0·65	3·24	1·63	0·44	...	0·06	0·13	7·50
Deesa	0·14	0·10	0·05	0·03	0·27	2·11	9·27	6·84	3·82	0·34	0·16	0·07	23·20
Bombay . . .	0·13	0·04	0·02	0·07	0·62	20·36	25·48	14·34	11·02	2·25	0·45	0·06	74·84
Kārwār . . .	0·08	0·02	...	0·54	3·44	37·58	36·84	23·88	12·09	7·11	1·86	0·11	123·55
Poona . . .	0·05	0·04	0·04	0·64	1·31	4·79	6·99	3·54	4·87	4·18	1·00	0·17	27·62
Bijāpur . . .	0·06	0·06	0·25	1·03	1·36	3·70	2·51	3·10	6·82	5·00	1·75	0·41	26·05
Belgaum . . .	0·04	0·04	0·40	2·13	2·40	8·92	15·09	9·26	4·86	5·69	1·56	0·13	50·52

Temperature

Station.	Height of Observatory above sea-level.	Average temperature (in degrees Fahrenheit) for twenty-five years ending with 1901 in							
		January.		May.		July.		November.	
		Mean.	Diurnal range.	Mean.	Diurnal range.	Mean.	Diurnal range.	Mean.	Diurnal range.
	Ft.								
Jacobābād	186	58·1*	29·8†	94·7	33·1	96·2	23·9	69·1	35·8
Karāchi	30	65·7	22·1	85·6	14·6	85·9	10·1	75·0	25·7
Deesa	466	67·6	32·1	92·0	28·8	85·2	14·6	74·9	33·6
Bombay	37	75·1	14·5	85·8	9·9	81·2	6·9	80·3	13·5
Kārwār *	44	76·1	21·0	84·8	10·1	77·5	11·0	78·6	17·9
Poona	1,840	70·4	31·3	85·6	27·2	76·7	11·5	73·0	26·8
Bijāpur †	1,946	72·8	26·8	87·6	26·1	78·8	15·9	73·8	24·7
Belgaum	2,539	70·6	26·1	80·6	25·2	71·5	8·9	71·9	21·1

NOTE.—The diurnal range is the average difference between the maximum and minimum temperatures of each day.
* The figures here are for twenty-four years. † These figures are for ten years only.

Many houses were destroyed in Cutch by an earthquake in 181 Seismic disturbances have been registered from time to time at th Colāba Observatory; but no earthquakes perceptible otherwise tha by scientific instruments have been recorded in the recent history o the Presidency. Cyclones and the accompanying floods have bee numerous. The usual period for such occurrences is just before, o at the conclusion of, the south-west monsoon. In August, 1868 a severe storm caused floods on the Sābarmatī river, which rose man feet in a few hours, flooding Ahmadābād and destroying 10,000 houses The total loss ascribed to this calamity was estimated at 158 lakhs. A similar flood in 1875 injured 4,000 houses. In 1872 the Pānjhra an Girnā rivers in Khāndesh District overflowed and caused grea destruction of property. More than 5,000 families were rendere homeless, apart from the wild tribes, and the damage to crops an property was estimated at 160 lakhs. Considerable tracts in Kair and Surat Districts have been flooded on numerous occasions. In 1883 continuous rain caused the Tāpti to rise steadily until one-third of Surat city was inundated by water to a depth of 20 feet. The surrounding country was flooded, and more than 2 lakhs' worth of damage to crops and buildings was recorded.

The records of the Meteorological department contain particulars of many cyclones on the west coast. In recent years the most noteworthy of these were in 1889, 1896, and 1902, the first two during the monsoon, and the latter in May, when a severe storm travelling northwards struck Bombay, doing much damage to the shipping in the harbour and the produce lying ready for shipment in the docks.

History.

In the earliest times of which we have any record the Aryans were already settled on the Indus and even knew of trade by sea. But the greater part of the west coast was peopled by Dravidian tribes, who lived in forts and villages under the rule of kings, carried on the ordinary arts of life, such as weaving, pottery, and working in metals, and worshipped spirits and demons of all degrees, besides a supreme deity known as *Ko* (king). An export trade to the Red Sea by way of East Africa sprang up as early as 1000 B.C., and with Babylon by way of the Persian Gulf not later than 750 B.C. By the latter route the Indian traders brought home the Brahmī alphabet, the parent of all modern Indian scripts, as well as the art of brick-making, and possibly the knowledge of the lunar mansions (*nakshatra*), the Babylonian weights (*manā*), and the legend of the Flood. The Persian conquest of the Indus valley (*c.* 510 B.C.) may have introduced the arts of sculpture and of coining money. Meanwhile, India south of the Vindhyas was being Aryanized in faith and partly in speech, not at first by conquest, but by peaceful settlements of Brāhmans along the west coast. For Western India the

importance of Alexander's march down the Indus (325 B.C.) lay chiefly in the fact that it cleared the way for the huge empire of the Mauryās, which under Asoka (272–231 B.C.), who became an ardent Buddhist, included Kalinga and the whole west coast down to Mysore, as well as the Marāthās of the Deccan (Rastikas and Petenikas) and Berār. Western India was placed under the prince-governor of Ujjain. Missions spread Buddhism among the traders of the coast towns and the Western Deccan, which by this time was more or less completely Aryanized; and Jainism also seems to have first reached the South at this period. It was a time of peace and of active intercourse with foreign nations, especially with the Greek monarchy of the Seleucids. Asoka's empire broke up after his death, the western provinces falling to the prince of Ujjain.

After the Mauryas came the Bactrian Greeks (180 B.C.), of whom Apollodotus and Menander (150 B.C.), a prince of Buddhist leanings, probably ruled in Sind and Kāthiāwār. Farther south the heritage of the Mauryas fell to the Andhras or Sātavāhanas of Paithan on the Godāvari, a Dravidian family whose power by 200 B.C. had reached Nāsik and the Western Ghāts. In the meantime a great migration of the nations of Central Asia brought a number of Scythians into Northern and Western India, where they came into collision with the Sātavāhanas, while the trade with Rome, which sprang up about A.D. 40, brought ever-growing wealth to the cities of the west coast. About 120 Ujjain and Gujarāt fell into the hands of a line of foreign Kshatrapas, which lasted till about 300. Their best-known ruler, Rudradāman (150), held the seaboard from the mouth of the Indus to the Damangangā, together with the inland country from Multān to Bhīlsa. The kingdom of his rivals, the Sātavāhanas, stretched across the Peninsula from sea to sea, and on the west from the Damangangā to Vanavāsi (Banavāsi) in Kanara, the chief towns being Dhanakataka (Dharnikotta) in the Kistna delta, Tagara (Ter) near Naldrug, and Paithan on the Godāvari. About 210 their power in the west seems to have died out, and that of the Kshatrapas took its place (*c.* 230–400). The country flourished so long as the two kingdoms were at peace. Brāhmans and Buddhists shared the royal bounty, and merchants vied with each other in excavating temples and monasteries on all the main roads to the coast. The Kshatrapas, foreigners as they were, were the first Indian dynasty to use classical Sanskrit in inscriptions, and Rudradāman himself was versed in all the learning of the Brāhmans, while the Sātavāhanas seem to have given much encouragement to Prākrit literature. After the fall of the Paithan dynasty (210) Broach monopolized the European trade, which was much encouraged by the Kshatrapas, who now seized and held Kalyān; but before long, through the fall of Palmyra (273) and the extinction of the main Kshatrapa line (*c.* 300), commerce fell into decay.

The next century and a half is a period of great obscurity. In Gujarāt a series of short-lived Kshatrapa dynasties followed each other till *c.* 390, when the country was conquered by the Guptas of MAGADHA, who held it, not without difficulty, till about 460; in the Deccan and Konkan we can dimly trace a number of small kingdoms, some of them founded by northern tribes (Abhīras). In the latter half of the fifth century new Central Asian hordes, led by the White Huns, poured into India from the north-west, and spread over the whole country as far as the Narbadā. In Kāthiāwār the Vallabhis (*c.* 500–770) established themselves on the ruins of the Gupta power; and farther south an extensive, though short-lived, empire was formed by the Traikūtakas, who were either identical or closely connected with the Kalachuris of Tripuri near Jubbulpore. From 500 onwards the new foreign invaders quickly became Hinduized. The Brāhmanic sects began to prevail over Buddhism, and Persian and Arabian influences became more powerful than European. The northern Konkan was ruled by the Mauryas of Purī near Bombay, while the coast farther south obeyed the Kadambas of Vanavāsi, and the Southern Deccan was the theatre of a struggle between the Chālukyas and Rāshtrakūtas. About 600 Gujarāt was overshadowed by the power of a new and energetic race, the Gūjars, who had probably entered India with the White Huns (452), and who, besides more northerly settlements in the Punjab and Rājputāna, established themselves at Bhilmāl near Mount Abu. By 600 they had overrun north-eastern Kāthiāwār, received the submission of the Vallabhis, and set up a branch at Broach (585–740). They rapidly assimilated Indian culture, and were, in the opinion of certain writers, the forefathers of some of the most famous Rājput races. For a time, indeed, it seemed as though the empire of the Guptas would be revived by Harshavardhana of Kanauj (606–48); but the confusion that followed his death left the field again open for the Gūjar dynasty of Bhilmāl, whose fortunes henceforward determined the fate of Gujarāt.

Meanwhile (600) the Chālukyas had emerged victorious from their struggles with the Traikūtakas and the Rāshtrakūtas in the Deccan, and had absorbed the smaller kingdoms of the coast. In the seventh century, which was the time of their greatest prosperity, a senior branch of this dynasty ruled the Deccan and Konkan, with a northern offshoot at Navsāri, while a junior line reigned at Vengi in the Kistna delta. The Chālukyas themselves worshipped Vishnu and Siva; but Jainism flourished in the southern Deccan, and great Buddhist establishments existed at Ellora, Ajanta, and elsewhere in the northern provinces. After the Arab conquest of Persia (640) foreign trade became extinct, and the strength of the Chālukyan empire was wasted in endless wars of conquest with its southern neighbours.

The eighth century saw the entrance of the Musalmāns into Indian

politics (711) and the fall of the Western Chālukya dynasty (750). The Musalmāns raided Gujarāt and destroyed the famous city of Vallabhi (*c.* 770), but their permanent conquests were limited to Sind. The Chāvadas, a Rājput tribe, probably of Gūjar origin, took advantage of the confusion caused by the Muhammadan raids to found the first kingdom of Anhilvāda (746) with the countenance and aid of the Gūjars of Bhilmāl, whose sway in the course of the next fifty years covered all Rājputāna and Mālwā, threatened Bengal, and eventually shifted its centre to Kanauj. The Gūjar empire soon showed a tendency to break up into separate states (Chauhāns of Ajmer, Paramāras of Dhār, Chāvadas of Anhilvāda, &c.). The Gujarāt branch seems to have encouraged literature and especially to have patronized the Jains. South of the Mahī also changes not less far reaching took place. The Rāshtrakūtas at last (*c.* 750) overthrew their old enemies the Chālukyas, whom they penned in Mysore, and set up a new empire with its capital at Mālkhed, 60 miles south-east of Sholāpur. The new kingdom was not so extensive as the old, for it did not include the territory of Vengi, but it was strong enough to prevent any northern power securing a lodgement on the southern bank of the Narbadā. The balance of power between the Gūjars and the Rāshtrakūtas lasted for about two centuries (*c.* 750–950). Neither kingdom was strong enough to encroach to any large extent upon the territory of the other—a state of things to which the dissensions between the Rāshtrakūtas of the main line and a branch that ruled in Gujarāt may have contributed. The Rāshtrakūtas carried on a good deal of desultory frontier fighting and had to meet several attacks from the Chālukyas of the south; but after the reign of Govinda III (794–814) they do not seem to have attempted conquests on a large scale. They were Saivas in religion, but Amoghavarsha I (814–77) was a patron of Jain literature. The power and magnificence of the dynasty greatly impressed the Arabs, to whom the king was known as the Balharā (Vallabharājā). But the local chiefs with whom the Arabs came most in contact were the Silāhāras of Purī, Chaul, and Thāna, who were made governors of the Konkan in the reign of Amoghavarsha I. Another branch of the same family ruled the coast farther south (800–1008). The trade with the Persian Gulf revived, and brought with it an influx of Pārsī refugees (775), who found a ready welcome at the hands of chiefs who honoured impartially Siva, Buddha, and Jina. But this revival of trade was attended with a great outburst of piracy, in which the daring sailors of western Kāthiāwār took a leading part. In 941 (961 ?) the kingdom of Anhilvāda was conquered by Mūlarājā Solanki, son of a Gūjar chief who probably ruled somewhere in northern Rājputāna. A few years later (973) a revolution took place in the Deccan also, when Taila, who was connected in some way with the old Chālukya family, over-

threw the Rāshtrakūtas and set up a new Chālukya kingdom, for whose capital Kalyāni in the Deccan was soon chosen. His follower Bārappa founded a subordinate dynasty in southern Gujarāt, but farther south the Silāhāras still continued to rule the coast.

In Gujarāt the direct descendants of Mūlarājā (the Solankis) reigned at Anhilvāda until 1143. In religion they were Saivas and showed a special attachment to the temple of Somnāth, which frequently brought them into collision with the Chudasamās of Girnār (c. 940–1125), who commanded the road to that holy place. The Chudasamās called in the aid of the chiefs of Cutch and Sind (probably the Sūmras), and were not finally subdued till 1113. The northern frontier of the Solanki kingdom was constantly threatened by the Chauhāns of Ajmer, who, however, never inflicted any serious defeat on the Anhilvāda kings. Wars with Mālwā were also frequent till about 1134, when Sidharājā defeated the Paramāras and occupied Ujjain. The relations of the Solankis with the Chālukyas of the Deccan were at first hostile, and some time after 1050 the former conquered Gujarāt south of the Mahi; but the later kings of Kalyāni appear to have been on friendly terms with their northern neighbours. The famous sack of Somnāth by Mahmūd of Ghazni (1026) seemed to threaten the extinction of the Solanki kingdom, but produced no lasting effects, and the Anhilvāda chiefs were left free to patronize literature and to adorn their chief towns with beautiful buildings.

The Deccan remained from about 973 to 1155 in the hands of the Chālukyas of Kalyāni, who adopted on a large scale the system, begun by their Rāshtrakūta predecessors, of placing separate provinces under hereditary governors, a policy which eventually proved fatal to their power. They carried on a series of indecisive wars with the Cholas of Kānchi (Conjeeveram), and inflicted severe defeats on the Paramāras of Mālwā and the Kalachuris of Tripuri (near Jubbulpore), but did not attempt any lasting conquest of those kingdoms. They encouraged trade and showed much favour to Musalmān settlers on the coast, and, like most Indian kings of this period, they surrounded themselves with poets and scholars and posed as patrons of literature. But the power of the feudatories always tended to increase at the expense of the central government, while a rival arose in Mysore in the Hoysala line of Halebīd, which first became dangerous about 1120.

Towards the middle of the twelfth century the throne of Anhilvāda passed to a collateral branch of Mūlarājā's line, but the change brought with it no alteration in policy beyond an increase in the influence of the Jains. Kāthiāwār and Mālwā were nominally provinces of Anhilvāda, but we still hear of wars against chiefs who continued to resist the Solanki arms. The Konkan was invaded about 1160, but without permanent results, while the Chauhāns of Ajmer continued to threaten

the northern frontier. The far more serious danger of Muhammadan conquest was averted by the defeat of Muhammad bin Sām in 1178, which saved Gujarāt from serious molestation for more than a century. But the Solanki kingdom had in its hereditary feudatories the same source of weakness as the Chālukya empire of Kalyāni; and when the last scion of Mūlarājā's line died in 1242, all power had already passed to the Vāghela chiefs of Dholka.

The same century that saw the decline of the Solankis (1143–1242) witnessed also a long and complicated struggle for the mastery of the Deccan. In 1155 Bijjala, a Kalachuri feudatory of the Chālukyas, set up as an independent ruler at Kalyāni, whence the Chālukyas fled; but the new dynasty was hardly founded when it was overthrown (1167) by a revolution in which Basava, the founder of the Lingāyat sect, is said to have been the leader. The Southern Deccan now fell into absolute confusion, and most of the great feudatories claimed independence, while the last of the Chālukyas and of the Kalachuris fought for the mastery, and the Hoysala king stood ready to destroy the victor. In the Northern Deccan, where there were fewer competitors, the feudatory Yādavas of Deogiri had been steadily enlarging their boundaries and strengthening their armies for the final struggle. The Hoysalas were the first to move. They destroyed the Kalachuris in 1184 and the Chālukyas in 1192, in which year they also defeated the Yādavas; and for a time it seemed as if they would succeed to the whole heritage of the Chālukyas. But after an interval of struggle the Hoysalas were driven back into Mysore, and the Yādavas under Singhana remained masters of the Deccan (1212). The Konkan chiefs, however, maintained their independence for some time longer.

The Dholka princes, who about 1233 superseded the Solankis in Gujarāt, belonged to a younger branch of the royal house, but their power was only a feeble caricature of the greatness of their predecessors. Their kingdom shrank to a part of northern Gujarāt and eastern Kāthiāwār, and their wars were little more than cattle-lifting raids. They were obliged to submit to, and to conclude a treaty of alliance with, the Yādava kings of the Deccan. Still at this time commerce flourished, and merchants spent large sums in building temples, while court poets and panegyrists were not wanting. But the real weakness of the kingdom is evident from the ease with which the armies at Delhi, under Alā-ud-dīn's brother Alaf Khān, subdued it in a single campaign (1298). The Yādava kingdom was likewise short-lived. Its first task, the subjugation of the great feudatories, was completed in the Deccan about 1250, and in the Konkan some ten years later. It is notable that we now for the first time meet with Brāhman generals and Brāhman provincial governors, employed in preference to the hereditary local chiefs whose power had proved so dangerous. The Yādavas had no

serious rivals on their frontiers, and we hear little of their foreign relations. Their own kingdom was peaceful and prosperous, in reaction from the troubles of the preceding century; the treasury was full; many temples were built; learning flourished; and a vernacular literature began to spring up. But these fair prospects were put an end to by an unforeseen enemy. Alā-ud-dīn Khiljī suddenly appeared before Deogiri with 8,000 men, swept off the treasures of king Rāmchandra, and exacted a promise of tribute (1294). After several revolts the last of the Yādavas was put to death in 1318, and the Deccan became a Muhammadan province.

For nearly a century (1298–1392) governors were sent to Gujarāt by the Sultāns of Delhi, but their province included only the open country about Pātan, Cambay, Baroda, and Broach, and the lower Tāpti. This territory suffered from the turbulence of Mughal mercenaries, and from the hostility of the Hindu chiefs of Kāthiāwār and the eastern hills, who were only brought to temporary submission by the presence of Muhammad bin Tughlak (1347–50). The last governor, Zafar Khān, the son of a converted Tonk Rājput, was left more and more to himself owing to the increasing weakness of the central power, and finally assumed the title of king in 1407. Owing chiefly to the unusual capacity of two of his descendants—Ahmad Shāh (1411–43), the founder of Ahmadābād, and Mahmūd Shāh Begara (1456–1511)—the kingdom flourished greatly down to 1526, and lingered on, despite the factious quarrels of its nobles, until the province was conquered by Akbar in 1572. At its best period the kingdom comprised northern Gujarāt from Abu to the Narbadā; Kāthiāwār, which became a Musalmān province through the occupation of Diu (1402) and Girnār (1471) and the sack of Dwārka Bet (1473); the Tāpti valley as far east as Thalner; and the tract between the Ghāts and the sea from Surat to Bombay. Between these southern districts and those of the Bahmanis, with whom Gujarāt was usually at peace, lay the buffer States of Bāglān and Burhānpur, the latter of which became for a long time a Gujarāti dependency under the Fārūki chiefs of Thalner and Asīrgarh (1370–1599).

The Deccan was organized as a Muhammadan province by Muhammad bin Tughlak, who divided it into four districts for which he appointed Moslem chiefs and collectors, and brought down settlers of all classes from Delhi. It included Chaul, Dābhol, Deogiri, Kandhār, Bīdar, Gulbarga, and Raibāg, and for a time Warangal, which last, however, was soon retaken by the Hindus. The garrisons were commanded by Mughal and Afghān officers, who in 1347 were driven into revolt by the severity of the Sultān, and set up a separate kingdom under the rule of Hasan Gangū Bahmani, a low-born Afghān of Delhi. Henceforward, and until 1586, the Sultāns of Delhi were too busy in

Northern India to intervene in the affairs of the Deccan. The Bahmani house did not die out until 1526, but it ceased to be of political account after 1482. It produced some active soldiers, but no really great ruler, and its prosperity was due partly to a succession of able ministers, partly to the absence of any rival of really equal energy. The centre of the Bahmani power was the open country of the Deccan from Daulatābād to Gulbarga. The frontier was advanced to Kaulās in 1351, to Golconda in 1373, and to Warangal in 1424, but did not reach the Bay of Bengal until 1472. South of Dābhol and the Kistna, the Konkan and Carnatic were for the most part held by petty Hindu chiefs who looked for aid to the Rājās of Vijayanagar, with whom the Bahmanis disputed the possession of the Raichūr Doāb and the fort of Bankāpur. The Moslems were on the whole successful in these wars and retained the Doāb, but their progress in the Ghāts and Konkan was very slow and incomplete. They invaded the Konkan in 1429 and 1436 with only partial success, and in 1453 with disastrous failure, and did not effectively occupy Goa till 1470. Their power in the Konkan at no time extended beyond a few of the larger ports. The interior of their country seems to have enjoyed peace, but suffered from terrible famines in 1396–1407 and in 1472–3. The downfall of the dynasty was brought about by the bitter jealousy between the Deccani nobles and the foreign chiefs (Afghāns, Turks, Mughals, Persians, and Arabs) upon whom the Sultāns chiefly relied. At the end of the fifteenth century the Bahmani empire was divided into five separate kingdoms, the more northerly of which (Ahmadnagar and Berār) were founded by Deccani nobles, while the three southern States of Bijāpur, Bīdar, and Golconda were established by Turkī chiefs. About the same time (1490) there was a change of dynasty at Vijayanagar also, and the Portuguese profited by the troubles to gain a footing on the coast. The Nizāmshāhi house of Ahmadnagar was of Brāhman origin and freely employed its fellows in high civil offices. The Bijāpur kings, who descended from the Marāthā wife of their Osmānli founder, from about 1535 made Marāthī their official language, and took Brāhman clerks and Marāthā soldiers into their service. The Ahmadnagar kingdom included the port of Chaul, the valley of the Godāvari as far as Nānder, and the greater part of the present Nāsik, Ahmadnagar, Poona, and Sholāpur Districts. Sholāpur itself, together with Naldrug and Kalyāni, was usually held by Bijāpur, though the Ahmadnagar kings claimed it whenever they felt strong enough. The districts of Mudgal and Raichūr were a similar bone of contention between Bijāpur and Vijayanagar. The original partition of the Deccan had no elements of permanency, as the statesmen of the period were well aware; but the balance of power was preserved by constantly shifting alliances in which the Musalmān kings and the rulers of Vijayanagar took part, until the

ravages committed by the Hindu troops in 1562 brought about a league between the Muhammadan powers which destroyed the Vijayanagar kingdom (1565). Ahmadnagar then proceeded to absorb Berār (1572), while Bijāpur set about conquering the Hindu districts south of the Kistna. During this period the Eastern Deccan was disturbed by perpetual warfare, and the Muhammadans were not strong enough at sea to protect their trade against the Portuguese. Although the Fārūki king of Khāndesh acknowledged Akbar's supremacy in 1572, the Mughal emperor did not actively intervene in the affairs of the Deccan until 1586, when his troops unsuccessfully invaded Berār in support of a pretender to the throne of Ahmadnagar. In spite of this warning, the reckless factions of the Deccan did not compose their differences. In 1595 a new Mughal army besieged Ahmadnagar and compelled the cession of Berār; and in 1596 war broke out afresh and ended in the capture of Ahmadnagar and the imprisonment of the boy-king by the Mughals (1600). Khāndesh had become a Mughal province in the previous year (1599).

In 1498 the Portuguese came to Calicut in search of 'spices and Christians,' their first acquisition in the Presidency being the island of ANJIDIV. Their crusading valour soon gave them a footing in the ports of East Africa and Malabar; and after defeating the Egyptian fleet at Diu in 1509, they became unquestioned masters of the Indian Ocean, where they were careful to allow no local navy to grow up and no merchantman to trade without their pass. The next step was to establish settlements on the coast, in which they were helped by the weakness of the country powers. They took Goa in 1510, Malacca in 1511, and Ormuz in 1515. Later, the decay of the kingdom of Gujarāt enabled them to occupy Chaul (1531), Bassein with its dependencies, including Bombay (1534), Diu (1535), and Damān (1559). But they soon became a corrupt and luxurious society, based upon slave labour and mixed marriages, and recruited by place-hunters and wastrels from home. The cruelties of the Inquisition (from 1560) alienated the natives, and the union of Portugal with Spain (1580) deprived the Indian settlements of their claim to be the first care of the home government. The Portuguese monopoly of the trade with Europe could henceforth last only so long as no European rival came upon the scene. On land, however, they were strong enough to beat off all Musalmān attacks on Goa (1570) and Chaul (1570 and 1592-4).

By the end of the sixteenth century the Delhi empire included the whole of Sind, Khāndesh, and Gujarāt, with the exception of the Portuguese possessions of Diu, Damān, Bassein, and Bombay. The efficiency of the administration was, however, much weakened by frequent transfers of officers, and by the practice, which soon grew up, of allowing the great nobles to remain at court and administer their provinces

by deputy. The land tax, which was fixed at the cash equivalent of one-third of the produce, was the chief head of revenue and was assessed upon a system devised by Rājā Todar Mal. Akbar abolished many minor imposts and transit duties, and prohibited *satī* and the enslavement of prisoners of war; but it is doubtful whether the control of the central power was at any time strong enough to enforce the emperor's benevolent measures in distant provinces. The emperors down to Aurangzeb employed Hindus and Musalmāns indifferently in positions of trust, and did not levy the poll-tax on infidels (*jazia*) from Hindus. In Gujarāt, down to the death of Aurangzeb (1707), the Mughal viceroys were on the whole successful in maintaining order and prosperity, in spite of the turbulence of the Kolīs and Rājputs in the north, of the famines of 1596, 1631, 1681, 1684, and 1697-8, and of the Deccani attacks on Surat, which was sacked once by Malik Ambar (1610) and twice by Sivajī (1664 and 1670). Almost throughout the Mughal period the province yielded a revenue of nearly two crores of rupees, and a large foreign trade was carried on at the ports of Cambay, Broach, and Surat. The decline of Mughal rule began with a Marāthā raid across the Narbadā in 1705. From 1711 these invasions became annual, and the Marāthās established themselves successively at Songad (1719), Chāmpāner (1723), and Baroda (1734). The beginning of the end came during the governorship of Sarbuland Khān (1723-30), who farmed out the revenues and admitted the Marāthā claims to *chauth* and *sardeshmukhi*. Henceforward, although the Delhi court continued to appoint viceroys until 1748, absolute anarchy reigned in the province, which was ravaged impartially by the leaders of the Peshwā's and the Gaikwār's armies, by the Rājās of Jodhpur, by the agents of the Nizām-ul-mulk, and by such local Musalmān chiefs as the Bābis, who established themselves at Junāgarh (1738) and Bālāsinor (1761), the Jhāloris, who settled at Pālanpur (1715), and Momin Khān, who set up the State of Cambay (1748). Famines in 1719, 1732, and 1747 added to the misery of the people. In 1737 the Gaikwār was admitted to a full half-share in the revenues of the province, and occupied Ahmadābād jointly with the viceroy's troops (1738). Broach from 1731 to 1752 was held by a deputy of the Nizām, who had to give up a share of its customs to the Gaikwār. Surat suffered chiefly from the violence of rival candidates for the governorship.

By 1600 the Mughals held Khāndesh and the forts of Ahmadnagar and Nāsik, but had by no means subdued the open country or crushed the Deccani Musalmāns, who established a new capital at Kharki (Aurangābād) close to their old centre of Daulatābād. In 1610 Malik Ambar recovered Ahmadnagar and nearly the whole of the old Nizāmshāhi dominions, and sacked Surat. Almost until his death (1626) he remained master of the Deccan, where he introduced the

revenue system that has made his name a household word. The Mughals did not really regain their position until 1630, or finally crush the Nizāmshāhis and capture Daulatābād until 1633. These successes brought them into collision with the Bijāpur government, which had hitherto followed a temporizing policy. The result of the war was a peace very favourable to Bijāpur, which gained the territory between the Bhīma and the Nīra, as well as the northern Konkan up to the Bassein river (1636). This peace lasted for twenty years (till 1656), during which the Mughals pacified the Northern Deccan and introduced Todar Mal's revenue system, while the Bijāpur government turned its attention to the conquest of the petty chiefs of the Carnatic. At this time the Hindus began to play a leading part in the Deccan. For a hundred years the Marāthās had been learning warfare, and the Brāhmans the art of government, in the service of the Bijāpur Sultāns. At the same time there had been a notable revival of Hindu religious feeling under the guidance of Vaishnava preachers (Eknāth and Tukārām). The Mughals had destroyed Ahmadnagar and were threatening Bijāpur. The old order was clearly falling to pieces and the Marāthās only wanted a leader. They found one in Sivajī Bhonsla. Sivajī was born (1627) and brought up in the country which passed from Ahmadnagar to Bijāpur under the treaty of 1636, and was under the immediate government of his father Shāhjī, who had been one of the most prominent of the Bijāpur generals. Though a younger son, he was initiated very early into the management of the family inheritance, owing to the absence of his father and brothers in the Carnatic. He was trained from the first as the Hindu ruler of a Hindu state, though this ideal by no means excluded politic submission to a foreign superior who did not interfere in home affairs. As his power increased, Sivajī modelled his government more and more on the old Hindu kingship of the law books. The complete attainment of his ideal was notified to the world by his coronation in 1674. This restoration of the old law under a Hindu king took such a hold upon the Marāthā imagination that Sivajī's system was enabled to survive the death of its founder. Sivajī built up his kingdom at the expense of Bijāpur. He began by subduing the new provinces in the northern Konkan and between the Bhīma and the Nīra (1646-8). He next conquered Jāvli in the old Bijāpur dominions (1655) and overran the Konkan from Janjīra to Goa (1659-62), after which he built forts on the coast and began to create a navy. The Bijāpur government, distracted by wars abroad and factions at home, failed to recover its lost provinces, and was compelled by an alliance between Sivajī and the Mughals to buy him off with a promise of tribute (1668). On the death of Sultān Alī Adil Shāh of Bijāpur in 1673, Sivajī renewed the war and conquered Panhāla, with the open country to the east of it, Sātāra, Phonda near Goa, and

the ports of Kārwār and Ankola (1672–6). He next allied himself with Golconda and invaded the Bijāpur Carnatic (1676–87). The Bijāpur government, now hard pressed by the Mughals, bought peace and alliance by ceding Kopal and Bellary and resigning the overlordship of the Carnatic (1679). In his two wars with the Mughals (1662–5 and 1670–80), which interfered with his designs on Bijāpur, Sivajī was not the aggressor. Aurangzeb on his part desired to weaken the Deccani powers by fomenting their quarrels, but not to crush them until he could take the field in person. Hence the real fight for the mastery of the Deccan did not take place in Sivajī's lifetime, and his raids upon Surat, Ahmadnagar, Aurangābād, Khāndesh, and Berār were only diversions. Sivajī carefully strengthened the forts in his territories, and collected his revenues direct through government officers. His army, both horse and foot, received regular pay, and had to account for their plunder. The Mughals had besieged Bijāpur in 1657 and again in 1666, when its Sultān bought peace by the cession of Sholāpur and the adjoining districts (1668). In 1675 a fresh Mughal invasion ended in a truce and alliance, which was renewed in 1678. But Aurangzeb pressed for harder terms, and the Bijāpur government turned for help to Sivajī, who created a diversion by plundering the Mughal Deccan (1679). After Sivajī's death (1680) the Mughal party again gained the upper hand in Bijāpur and tried to recover some of the districts ceded to the Marāthās. Aurangzeb judged that the time had now come for completing the conquest of the Deccan, which he entered in person with a vast army (1684). For a time success seemed to follow his arms. He took the capitals and occupied the territory of both Bijāpur (1686) and Golconda (1687), and captured and executed Sivajī's weak son Sambhājī (1689). But he had now destroyed the only organized Musalmān power of the Deccan, and was to enter upon a war of race and religion in which the Marāthās were no longer paralysed by the incapacity of Sambhājī. The country was overrun by the disbanded soldiery of the fallen kingdoms, and the resulting anarchy gave full scope to the guerrilla tactics of the Marāthās. Aurangzeb could neither trust his officers nor do everything himself, and corruption and disorganization increased from year to year until the whole imperial machine was out of gear. In the first stage of the war, Rājā Rām, the Marāthā regent, held his court at Gingee in the Carnatic (1690–8), which was besieged by the Mughals, while the Marāthā horse overran the Deccan in every direction. In the next period (1699–1705) Aurangzeb besieged the Marāthā forts, while the Marāthā horsemen ranged farther afield into Mālwā and Gujarāt. About 1705 the tide definitely turned. The Marāthās recaptured their forts, and Aurangzeb retired to Ahmadnagar, where he died (1707). The new emperor withdrew the remnant of the great army of the Deccan, but created

a division among his enemies by releasing Sivajī's grandson Shāhū, who had been brought up at the Mughal court (1707). Shāhū established himself at Sātāra, while a younger branch of Sivajī's line set up a separate kingdom at Kolhāpur (1710). After a period of anarchy Shāhū, aided by the talents of Bālāji Vishvanāth, the founder of the Peshwā line, restored order in his own territory, was acknowledged (1713) by Angriā, the commander of the fleet, who ruled the Konkan from Kolāba southwards, and obtained (1720) from the emperor the cession of the country south of the Bhīma as far east as Pandharpur, as well as the right to levy *chauth* (one-fourth) and *sardeshmukhi* (one-tenth) from the Mughal Deccan, the Carnatic, Tanjore, Trichinopoly, and Mysore. These levies gave the Marāthās a pretext for interfering wherever they chose. The collections were so arranged as to intermingle the interests of the several military chiefs, and make them dependent on their Brāhman clerks. The increasing power of the Peshwā and the employment of the Marāthā forces in distant enterprises brought about the decay of Sivaji's constitution, which was suited only for the management of home affairs. As the authority of the Rājā grew less, the kingdom became a confederacy of leaders whose chief bond of union was a joint interest in their plunder. The year 1724 was a turning-point in Deccan history, marked by the definite adoption by Shāhū, under the influence of Bālāji's son, the Peshwā Bāji Rao, of the policy of destroying the Mughal empire, in preference to consolidating his own dominions, and by the arrival in the Deccan of Nizām-ul-mulk, the founder of the present Hyderābād dynasty, nominally as the emperor's deputy, but really as an independent ruler. The Nizām desired to free the *Sūbah* of Hyderābād from the Marāthā claims, but was completely defeated (1728). His ally, the Rājā of Kolhāpur, was bought off by the cession of the country between the Vārna and Tungabhadra (1730); and his tool, Trimbak Rao Dābhāde, was defeated and slain (1731). The Peshwā now (1732–6) turned his attention to Mālwā and advanced to the gates of Delhi. In 1737 the Nizām was induced by the emperor to invade Mālwā, where he was defeated; but in the Deccan his troops met the Marāthās on equal terms and peace was restored, to the vexation of Bājī Rao, who died in 1740. Meanwhile, the ruin of the Mughal empire was completed by the invasion of Nādir Shāh (1739).

The Marāthās from this time to the end of the eighteenth century remained the dominant power in Western India, and during the first thirty-four years of this period (1740–74) they had only local rivals to deal with. Gujarāt was parcelled out among a number of local chiefs, who carried on ceaseless petty wars which the Marāthās had no wish to suppress so long as they could secure their share of the plunder of the province. The Peshwā's seizure of half the Gaikwār's share in

1751 only added another claimant of blackmail. After the battle of Pānīpat the local Musalmāns tried, but failed, to drive out the Gaikwār (1761). The last chance of a strong native government growing up was, however, ruined by the disputed succession at Baroda in 1768. The internal troubles at Surat lasted until the castle was occupied by the British in 1759. This event gave them claims on Broach, which had been independent since 1752, but was taken by a British force in 1772. In 1740 the new Peshwā, Bālāji, had first to strengthen his own position in the Deccan. He bought off his most dangerous rival, Raghujī Bhonsla of Nāgpur, by giving him a free hand in Bengal (1744). He obtained from Shāhū on his deathbed a deed empowering him to govern the kingdom (1749); he secured the succession of a puppet Rājā of doubtful legitimacy (1749); won over the leading chiefs by liberal grants; made Poona the capital of the confederacy (1750); and baffled by treachery the rising of Dāmāji Gaikwār (1751). The old Nizām had died in 1748. Bālāji took part in the disputes among his sons, and, in spite of the aid given by the French to their nominee, extorted a cession of all the country west of Berār, between the Tāpti and the Godāvari (1752). Further quarrels among the Nizām's sons enabled the Peshwā to occupy Ahmadnagar. This led to a war, at the end of which (1760) the Marāthās obtained possession of the *Sūbah* of Bijāpur, which they henceforth retained, as well as of other lands which the Mughals regained later (1763 and 1766). In 1743 the Peshwā had become governor of Mālwā; in 1754 his troops had decided the succession to the Mughal empire; and in 1755 they levied *chauth* in Hindustān and at Arcot. But their military power was broken when at its height by Ahmad Shāh Durrāni at the bloody battle of Pānīpat (1761), which was followed by the death of Bālāji. This crushing blow enabled the Nizām to recover some of his lost provinces (1763), gave Haidar Alī time to strengthen himself in Mysore (1764), and freed Delhi from Marāthā domination for nine years (1761–70). The Bhonsla of Berār showed a tendency to break off from the confederacy, and Bālāji's brother Raghuba began that course which for twenty years made him the stormy petrel of Marāthā politics. None of the country powers, however, was strong enough to overthrow the Marāthā kingdom. The able young Peshwā, Mādhu Rao I (1761–72) checkmated his turbulent uncle, played off the Nizām against the Bhonsla, repeatedly defeated Haidar Alī, and re-established Marāthā influence at Delhi (1770–2). He also found time to bring his Deccan provinces under a system of government which, however rude, was vigorous, popular, and comparatively honest, and under which he realized a revenue of 280 lakhs.

The first collision between the Marāthās and the British took place in 1774, when civil war broke out between Raghuba and the ministry

which governed in the name of the child Peshwā, Mādhu Rao II. Hearing of a Portuguese expedition for the recovery of Salsette, the Bombay Government seized that island (1774), and agreed to aid Raghuba in return for the cession of Salsette, Bassein, and certain districts in Gujarāt (1775). The Governor-General, however, concluded with the Poona ministry the Treaty of Purandhar (1776), under which Raghuba was to be pensioned off and Salsette and Broach were to be left in the hands of the British. But the wording of the treaty gave rise to new disputes; and the fear of a French invasion led the Bombay Government to send Raghuba towards Poona with an army, which, however, was compelled to surrender at Wadgaon to Sindhia and Nāna Farnavīs, the two leading members of the Peshwā's government (1779). The balance was restored by the march from the Jumna to Surat of a Bengal army, which met with considerable success in Gujarāt and took Bassein (1780). A league between the Peshwā, the Nizām, and Haidar Alī (whose aid the Marāthās obtained by confirming his conquests in Dhārwār) led the British to drop the scheme of setting up Raghuba at Poona, and Mālwā and Madras became the chief theatres of war. Sindhia was the first to come to terms (1781), and some months later Nāna Farnavīs also agreed to the Treaty of Sālbai (1782), under which Salsette remained with the British, who handed over Broach to Sindhia. The Gaikwār was protected against the Peshwā, and Raghuba was pensioned off and died soon after (1784).

For twenty years (1782–1803) the British and Marāthā Governments remained at peace. It was during this period that the Marāthā confederacy began to break up. The Gaikwār was detached by his acceptance of British protection (1782); Sindhia had become accustomed to act alone in Hindustān, and took no part in the Mysore War (1785–92); while the Berār chiefs were encouraged by the British to follow a policy of their own. In Gujarāt there was little improvement in the government during this period, though, in spite of disputes in the Gaikwār's family and intrigues at the Poona court, a semblance of order was preserved by British influence from 1782 to 1799, when the Gaikwār took Ahmadābād and imprisoned the Peshwā's agent. Further disturbances then took place, which were put down by a British force (1803). In 1799 the Peshwā farmed his rights to the Gaikwār, who entered into subsidiary alliance with the British. Negotiations followed between the British, the Peshwā, and the Gaikwār, which ended in the cession to the first named of certain districts and rights in Gujarāt. The British Government had annexed Surat in 1800, on the death of the Nawāb, whose family were pensioned off, and had conquered Broach from Sindhia in the war of 1803.

After the peace with the English (1782) the first care of Nāna Far- . . . territory with

hich the Peshwā had bought the aid of Mysore in 1779. This object ·as attained in 1787, but Tipū renewed the war, and by attacking 'ravancore drove the British to join the alliance against him (1790). n 1792 he made peace at the cost of half his dominions, of which the 'eshwā obtained the portion north of the Wardhā river. The accession f Raghuba's son Bājī Rao to the Peshwāship (1796) caused the fall of Jāna Farnavīs and the ruin of the Marāthā power. Through his efforts o secure the throne and to shake off first Nāna Farnavīs and then ;indhia, Bājī Rao incurred the distrust of all parties and plunged the)eccan into civil wars in which the Rājās of Sātāra and Kolhāpur took ,art. He intrigued both with the British and with Tipū, but took no ,art in the last Mysore War (1799), at the end of which he found himelf hemmed in between a British protectorate (Hyderābād) on the east nd British Districts on the south. The Marquis Wellesley now invited ıim to enter the system of subsidiary alliances. In fear of Holkar, who ıad seized Poona in revenge for the murder of his brother, Bājī Rao igned the Treaty of Bassein (1802). The British restored him to 'oona; defeated Sindhia and the Berār chief, who had taken up arms ɔn hearing of the Treaty of Bassein, at Assaye, at Argaon, and in Hindustān, and forced them to sue for peace (1803). The Bombay Government took but a subordinate part in these proceedings, as from 1774 their foreign policy had been controlled by the Supreme Governnent at Calcutta, and in the Deccan campaign of 1803 the chief part vas taken by Madras troops. The Presidency then included only Salsette, the harbour islands (from 1774), Surat (from 1800), and Bānkot (from 1756), the affairs of Northern Gujarāt and the Deccan being the business of the Governor-General's Agents at Baroda and Poona respectively.

It was between the years 1803 and 1827 that the framework of the Bombay Presidency took its present shape. The first Districts to be organized were those of Gujarāt, which were taken over by the Bombay Government in 1805, and enlarged in 1818. The Gaikwār was already under British protection, and the Peshwā's rights were acquired partly by treaty and partly by conquest. The Districts were organized on the Bengal model, and the change from native rule was rather in men than in measures. The first steps towards the settlement of Kāthiāwār and the Mahī Kāntha were taken between 1807 and 1820. After Bājī Rao's restoration the Deccan suffered severely from famine; and robbery, oppression, and corruption were rampant. After long vacillation, Bājī Rao, the last of the Peshwās, attempted to shake off British control, but was defeated, captured, and pensioned off (1817–8). A kingdom was created for the Rājā of Sātāra, the heir of Sivajī, out of part of the Peshwā's dominions, and two *parganas* were given to Kolhāpur; the rest was placed under a British Commissioner (1819). The settlement of

the Presidency was completed by Mountstuart Elphinstone (Governor in 1819–27), whose aim was to govern on the best native lines, avoiding changes until the people should be fitted for them by education. He pacified the Deccan, set up the Sadr Court, codified the laws, and opened schools. The grosser abuses of Bājī Rao's days were stopped, and the peasantry were contented and orderly, though the Brāhmans and the soldiery felt the loss of their former chances of distinction and plunder.

Elphinstone's governorship was followed by a period of retrenchment and slower progress, marked chiefly by the enlargement of the Presidency through the lapse of Native States, the addition of ADEN (1839) and SIND (1847), and the lease of the Pānch Mahāls from Sindhia (1853). Something was done for education, irrigation, public health, and railways, and in 1843–5 a somewhat serious rising in Kolhāpur was put down. The Government had the defects of its qualities. Taxation was lighter than before, but more strictly exacted. Criminal trials were more regular, but punishment was less certain. Now that order reigned, more land was tilled and trade was safer, but for that very reason there followed a great and general fall of prices, which increased the pressure of the land tax. In the Deccan a premature attempt at a new settlement led to great distress. The new rates were at once reduced, and after twelve years of inquiry the principles which are still the basis of the Bombay land revenue system were formulated in 1847. The operations of the new survey generally resulted in a reduction of assessment, and there ensued a period of great agricultural prosperity. The survey brought to light many cases of lands held rent-free without authority, and the Inām Commission was appointed to inquire into all such claims (1852).

Under Lord Elphinstone (1853–60), though the landholders had been alarmed by the proceedings of the Inām Commission and by the use of the doctrine of 'lapse,' the Presidency passed through the crisis of the Mutiny without any general rising, for the local rebellions in Gujarāt, among the Bhīls, and in the Southern Marāthā Country lacked concert and cohesion, and the outbreaks among the troops at Karāchi, Ahmadābād, and Kolhāpur were quickly put down. The most dangerous rebel, Tāntiā Topi, was headed off from Gujarāt and hunted down in 1859. After the Mutiny progress was much more rapid, especially as regards education, railways, and the cotton manufacture.

Under Sir Bartle Frere (1862–7) agricultural prosperity reached its highest point, owing to the enormous demand for Indian cotton in Europe during the American Civil War (1861–5). The wealth thus poured into the country led to an extraordinary epidemic of speculation, known as the 'Share Mania' (1864–5), which ended in a serious commercial crisis and the failure of the Bank of Bombay (1866). But the

peasantry on the whole gained more than they lost, and in the long run the trade of Bombay was not seriously injured. At this time the main lines of railway were opened and the Presidency was covered with a network of roads.

In 1868 the monsoon failed and the condition of the Deccan began to cause anxiety, owing to the indebtedness of the peasantry. Their relations with their creditors led to riots and outrages (1873), which were inquired into by a special commission; but before any action was taken on its report, the monsoon of 1876 failed and the great famine of 1876–8 set in. The monsoon of 1877 was again irregular, and was followed by epidemic fever and a plague of rats (1878), so that relief measures were not discontinued until 1879. The direct result of the famine was the construction of new railways and irrigation works in the Deccan, and the formation of Government forests on a large scale for the purpose of improving the rainfall and securing the supply of wood. A measure was also passed to protect agriculturists against the grosser forms of fraud on the part of money-lenders (1879).

There followed a brief period of prosperity in which much was done for education and local self-government. About 1890 a series of bad seasons began. Hindu feeling was much excited by discussions on the Age of Consent Bill, and by the preaching of the Cow Protection Societies, which embittered the relations between Hindus and Muhammadans to such an extent as to cause riots in Bombay and many other places (1893–4).

Worse, however, was to follow. The rains of 1895 were below the average, and the failure of those of 1896 caused famine throughout the Deccan in 1896–7. After one poor and one fair season there followed the great famine of 1899–1902, which desolated Gujarāt and the Northern and Western Deccan, and was accompanied by a virulent outbreak of cholera. Plague appeared in Bombay City in August, 1896, and has since spread by land and sea to every part of the Presidency. The original plague measures caused great alarm and discontent, and were violently opposed in 1898 at Sinnar and Bombay. When the most stringent and costly efforts failed to stamp out the disease, it became clear that a permanent plague policy could not be based on them. From October, 1898, therefore, more use was made of native volunteer agency, the restrictions on travelling were relaxed, and the discretional relief fund was started to help the poorer sufferers. The inquiries of the Plague Commission (1898–9) resulted in still further relaxations, which came into force under the orders of the Government of India from July, 1900. The people are now generally accustomed both to the plague and to the existing plague measures, and accept both with resignation. Down to the end of March, 1904, over one million deaths had been reported in the Presidency as due to

plague. Bitter feelings against Government found vent in the native press, in an attempted strike against the payment of revenue (1896–7), and in disturbances arising out of forest grievances in Thāna (1896), and culminated in the murder of the chairman of the Poona plague committee and another officer by a band of Brāhman fanatics in June, 1897. Trade and industry suffered very severely during these years.

Except a few dolmens and implements of the stone age, there are no remains in Western India older than the inscriptions of Asoka (250 B.C.) at JUNĀGARH and SOPĀRA. The oldest buildings were of wood, but were copied in hundreds of Buddhist caves dug out of the trap cliffs on the main routes from the Deccan to the coast. The best-known groups are at BHĀJA (200 B.C.), BEDSA (100 B.C.), KĀRLI (50 B.C.), JUNNAR (A.D. 100), NĀSIK (100 B.C.–A.D. 200), and KĀNHERI (A.D. 100–500). In each group is at least one pillared hall with a barrel roof and a relic shrine (*chaitya*) and a number of square chambers (*vihāra*), out of which open cells for monks and travellers. There are no separate relic shrines (*stūpa*), rails, or pillars of archaeological importance. Both Jains and Hindus imitated the Buddhist caves, but, except the Hindu caves at ELEPHANTA and BĀDĀMI (seventh to eighth century), their best work is found in the Nizām's country. All temples in Western India have a cell which contains the idol, with a tower above it (*vimāna*), and a pillared porch or hall (*mandapa*) in front. The oldest structural temples (seventh and eighth century) are to be found at AIVALLI, PATTADKAL, and BĀDĀMI in Bijāpur District. One of these resembles a *chaitya* cave, while others show the terraced tower of the Dravidian or the four-sided spire of the Indo-Aryan style. The latter is the true local style of the Deccan, where hundreds of temples, which are now ascribed in the Marāthī districts to Hemādpant and in the Kanarese country to Jakhanāchārya, were built between 1000 and 1300. The term Hemādpanti, which is applied to old temples, reservoirs, and wells in Khāndesh and the Deccan, is derived from the name of the minister of Rāmchandra (1271), the Yādava ruler of Deogiri, who is supposed to have introduced some change in architectural style. But the word has lost the special meaning which it once possessed, and is loosely applied to any old stone building dating from the period mentioned. This was the great age of temple-building in Gujarāt also, where the Jain style with its domed porches and rectangular courtyards grew up at Girnār and Shetriya. Ambarnāth is the best known, and Gondesvar near Sinnar the most perfect, example of the Indo-Aryan style. To the same period belongs the secular architecture of Jhinjhūvāda and Dabhoi, and a number of large wells and tanks in Gujarāt and the Deccan. The earliest Musalmān work of note is the Jāma Masjid at CAMBAY (1325), built from the spoils of Jain temples. During the best period (1411–1511) of the Ahmadshāhī

kings, Ahmadābād, Mahmūdābād, and Chāmpāner were adorned with many beautiful mosques, tombs, and palaces of Moslem design worked out by Hindu artists. In the Deccan the most notable Muhammadan remains are the tombs, mosques, and palaces erected at Bijāpur between 1557 and 1657. Since the fourteenth century the Hindus have built little of note except some forts, such as those constructed by Sivajī.

The history and archaeology of Sind are dealt with in the article on that Commissionership.

Population.

The Census of 1901 showed the Bombay Presidency to contain 331 towns, 40,694 villages, and 5,004,095 houses, with a population of 25,468,209. Of these, 18,515,587 were in British territory, 6,908,648 in Native States, and 43,974 in the outlying settlement of Aden. The density for the Presidency as a whole is 135 persons per square mile. Sind has a population of 3,210,910, with a density of 68; the Northern Division 3,513,532, density 256; the Central Division 5,944,447, density 160; and the Southern Division 5,070,692, density 203. Bombay City has a population of 776,006[1], equal to 35,273 to the square mile. The Native States belong to four main groups—Gujarāt, population 4,361,666, density 94; Konkan, 350,684, density 225; Deccan, 373,779, density 78; Carnatic, 1,623,206, density 234. Khairpur in Sind has a population of 199,313 and a density of 33. In British territory the density of population varies from 449 (Kaira District) to 27 (Thar and Pārkar); in the Native States, from 319 (Kolhāpur) to 20 (Khāndesh Agency). Bombay City has a density nearly double that of Madras City, exceeding 500 to the acre in its most populous sections.

The Presidency as a whole contains 11 towns of more than 50,000 inhabitants, and 313 of between 5,000 and 50,000. Villages of between 500 and 5,000 (including a few classed as towns in the Census) number 12,951, and villages of less than 500 inhabitants, 27,747.

Less than one-fifth of the population (19 per cent.) are to be found in towns of 5,000 and over. The percentage of urban population has increased from 17 to 19 in the ten years since 1891; but in the face of the opposing influences of plague and famine, it is difficult to assign any definite significance to this increase. Except in the Konkan, where the houses are often widely scattered, the majority of the village population are crowded together on limited sites. Famine tends to drive villagers to centres of trade in search of employment, while plague acts as a deterrent on those who would otherwise resort to infected centres. Since the first plague epidemic in 1896, there has been a noticeable movement from town and village sites to the fields in the vicinity. The six most populous towns in British territory are Bombay (776,006),

[1] The population in 1906 was 977,822, according to a special census.

AHMADĀBĀD (185,889), POONA (153,320), SURAT (119,306), KARĀCHI (116,663), and SHOLĀPUR (75,288). Further details of the population by District and State are given in Table I. on pp. 383–4.

An estimate of the population, prepared in 1854, gave a total of 15,578,992; in 1872 the first decennial Census showed that this had increased to 23,099,332. In 1881, in spite of the severe famine which occurred in 1877, the total reached 23,432,431, and this had again increased in 1891 to 26,960,421.

The decrease of population since 1891 by reason of famine and plague amounts to about $1\frac{1}{2}$ millions, and has affected every District in the Presidency proper except Dhārwār and Ratnāgiri, which show an increase of 6 per cent. The Mahī Kāntha and Khāndesh Agencies have lost 38 and 43 per cent. of their population. Sind alone shows an increase of over 11 per cent., which is due to immigration as well as to natural growth. The brunt of the loss was experienced by the Native States and Gujarāt, which suffered most severely from the famine of 1899–1900. The mortality caused by famine and plague between 1891 and 1901 is roughly estimated at 3,000,000, of which one-third occurred in British territory and two-thirds in the Native States.

The Presidency possesses an immigrant population of 800,000, the most noteworthy immigration being into Sind, where the bringing of fresh land under cultivation draws many cultivators from Baluchistān and the Punjab. There are now more Baluchis in Sind than in the whole of Baluchistān. A large number of labourers from Kolāba and Ratnāgiri Districts and from the Ghāt villages of Ahmadnagar, Poona, and Sātāra are found in Bombay City, where they are employed in the docks, or in the many factories and cotton-mills. It is remarkable that Bombay draws labourers even from the United Provinces, 36,000 immigrants from that area having been enumerated in 1901. On the other hand, the Census showed a total of 600,000 emigrants from the Bombay Presidency in other Provinces and States (excluding Baroda), so that streams of migration to and from the Presidency very nearly neutralize each other. These emigrants are chiefly found in Hyderābād State, Central India, and Berār. There is some emigration from the coast of Kāthiāwār to South Africa.

The record of ages in an Indian Census is notoriously untrustworthy, owing to the widespread ignorance of correct ages. In 1901 the population of the Presidency (excluding Aden) was 25,424,235, including 3,024,460 children under five years of age. The age distribution for each sex shows a preponderance of females in the periods 0–10 and over 40.

The only interesting conclusion to be drawn from the age statistics recorded in 1901 is that, in Districts severely affected by famine, the proportion of the population in the age periods 0–5 and 60 and over

is markedly less than elsewhere, an indication that the greatest sufferers in the famine period were young children and old people. The mean age of the population is 27, and is highest (29·4) among the Pārsīs owing to the steady decrease in the birth-rate of this community.

Age.	1881.		1891.		1901.	
	Males.	Females.	Males.	Females.	Males.	Females.
0—10 .	2,726	2,815	2,853	2,983	2,562	2,669
10—15 .	1,236	1,039	1,063	866	1,326	1,148
10—25 .	1,626	1,676	1,645	1,688	1,662	1,699
25—40 .	2,482	2,400	2,439	2,355	2,482	2,408
40 and over	1,930	2,070	2,000	2,088	1,968	2,076

The registration of births and deaths is compulsory in Bombay City, and is enforced more or less imperfectly under by-laws in most other municipal towns. In rural areas the village officers are held responsible for omissions and do their work with fair accuracy, except in Sind. The record of deaths is usually better than that of births. In a normal year the proportion of deaths to births is as 3 to 4; but since 1896 plague and famine have caused a large increase in the mortality, and have also affected the birth-rate. Of late years Bombay City has had the highest death-rate (66 per 1,000) owing to plague, and the lowest birth-rate (14) owing to the small proportion of women and to the immigrant nature of its population. The highest birth-rate occurs in Khāndesh, and the lowest death-rates in Sind (16 to 22), where registration is defective, and in Ratnāgiri (25). The figures for 1900 in the table given below for British Districts show very clearly the effects of famine:—

	Population under registration.	Ratio of registered births per 1,000.	Ratio of registered deaths per 1,000.	Deaths per 1,000 from			
				Cholera.	Small-pox.	Fever.	Bowel complaints.
1881 .	16,454,414	27·9	23·2	1·0	0·0	16·6	1·8
1891 .	18,857,044	36·3	27·3	0·9	0·1	19·6	2·0
1900* .	"	26·9	70·1	8·7	0·5	28·9	11·6
1901 .	18,515,587	25·2	37·1	0·7	0·3	15·8	3·3
1902 .	"	34·2	39·0	...	0·2	14·7	3·2
1903 .	"	31·2	43·9	0·1	0·2	14·1	3·0

* Famine year.

Cholera is prevalent in the hot season in years of short rainfall, and fever on the Ghāts and in tracts liable to flooding in the autumn and winter. Small-pox is held in check by vaccination. Plague broke out in Bombay City in August, 1896, and has spread to every District, causing a larger number of deaths in each succeeding year except 1900. The total plague mortality in 1903 was 15 per 1,000, Belgaum, Dhārwār

Sholāpur, Ahmadnagar, Sātāra, Kaira, and Bijāpur suffering most. The deaths returned as due to fever probably include many due to plague. The present policy is to provide hospitals for the sick and camps for the healthy, and to offer inoculation to those who desire it; but compulsion is avoided as far as possible.

The proportion of sexes is vitiated to some extent by failure to enter females at the Census enumerations. The general proportion of females recorded in 1901 is 938 to 1,000 males in the British Districts. In Sind the proportion of women is very low. An excess of females over males is particularly noticeable among the low castes and wild tribes. Infanticide formerly prevailed among the Rājputs and Kunbīs of Gujarāt, but is believed to be no longer practised. The cause of this barbarous practice was the difficulty of securing bridegrooms from the sections of these castes with whom custom prescribed that intermarriage should take place.

Statistics of civil condition are shown in the table below:—

	1891.			1901.		
	Persons.	Males	Females	Persons.	Males.	Females
Unmarried	10,753,459	6,536,214	4,217,245	10,334,421	6,261,568	4,072,853
Married .	13,385,644	6,675,545	6,710,099	11,974,989	5,972,759	6,002,230
Widowed .	2,758,003	660,854	2,097,149	3,114,825	831,555	2,283,270
Civil condition not returned .	19,236	10,579	8,657	...	...	...
Total	26,916,342	13,883,192	13,033,150	25,424,235	13,065,882	12,358,353

According to the results of the Census of 1901, males in the age period 10–15 show 85 per cent. still unmarried, but females only 50 per cent., in the Bombay Presidency including Native States. Females married in the age period 0–10 are more than three times as numerous as males. This is due to the very early age at which Hindu parents are accustomed to marry their female children. Among Hindus polygamy, though allowed, is rare, and divorce and widow marriage are marks of low status.

The proportion of widowed females to 1,000 widowed males is very high in Ratnāgiri (5,862), Sātāra (4,005), Kanara (3,924), and Kolāba (3,794). The plague epidemic in Bombay City, to which the male population of these Districts emigrate annually, seems to have caused the death of the husbands.

The table on the next page gives the language statistics for 1891 and 1901, excluding Aden.

In the north, Sindī is the mother-tongue of all save a small minority, who for the most part speak either Mārwārī, Baluchī, or Gujarātī. South of Sind, Cutchī or Kachhī, now recognized as a form of Gujarātī,

is spoken in Cutch. Gujarātī and Western Hindī are the principal languages in the five Districts of Gujarāt, the former merging into the dialects of primitive races where the province approaches the hills or the borders of Rājputāna. Thāna and the Central Division are the home of Marāthī, different forms of which are spoken above and below the Ghāts. In the wilder parts of Khāndesh the hill tribes express themselves in dialects that resemble either Gujarātī or Marāthī according to their distance from places where these languages are in use. The Southern Division is divided between Kanarese and Marāthī, the former slightly ahead of the latter numerically. Marāthī is most common on the coast portions. Kanarese extends as far north as the southern part of Sholāpur District and is spoken by an appreciable number in the south of Sātāra. The Native States resemble the adjacent British Districts. Arabic and Somālī are the chief languages in Aden and Perim.

	Persons.	
	1891.	1901.
Marāthī	10,550,848	10,338,262
Gujarātī	8,633,332	7,140,613
Kanarese	3,068,453	3,097,325
Sindī	2,564,845	2,934,711
Hindī	1,194,112	1,124,171
Bhīl dialects	125,496	119,946
Others	779,256	669,207
Total	26,916,342	25,424,235

The Linguistic Survey of India has now advanced sufficiently to enable the languages and dialects of the Presidency to be classified on a scientific basis. It is probable that the completion of the survey will lead to the elimination of many dialects entered in the provisional lists framed during its progress. Meanwhile the *Census Report* for 1901 gives the numerical results of this preliminary classification. The following figures show the number in every 10,000 of the population who speak each of the four main languages (including kindred dialects) of the Presidency:—

Marāthī	4,066	Kanarese	1,218
Gujarātī	2,809	Sindī	1,154

Thus more than 90 per cent. of the population use a language or dialect included in these four. The only other languages of any importance are Western Hindī, Rājasthānī, Bhīl, Telugu, and Baluchī, of which all but Hindī and Bhīl are the languages of immigrants, such as merchants and bankers from Mārwār, or cultivators and landowners from Baluchistān. Western Hindī for the most part covers the tongue affected by the Musalmān population outside Sind, and includes the dialect known as Hindustānī.

It should perhaps be added that in this brief description Konkanī has been treated as a dialect of Marāthī, in accordance with the classification adopted in the Linguistic Survey. The decision is contested by many, who would derive Konkanī direct from the Prākrit and claim for it an antiquity exceeding that of Marāthī as a spoken language. The point is one for experts to decide, though it may be remarked that modern Konkanī is certainly permeated with corrupt forms of words found in a purer state in Marāthī, and is also to no little extent dependent on words borrowed from Dravidian languages. Konkanī is spoken, as the name implies, in the Konkan, including the Konkan Ghāt Mātha or 'spurs of the Ghāts.' Unlike Marāthī, Gujarātī, and Kanarese, it has practically no literature except that written by Roman Catholics of Goa.

The Bombay Presidency intersects many of the social strata deposited by early invasions of India, and contains within its limits a variety of castes and tribes hardly equalled by any of the other great Provinces.

The natural divisions of the Presidency, distinguished by special influences on the development of caste and tribe, are five in number: Sind, Gujarāt, the Deccan, the Konkan, and the Carnatic. To Sind and its predominant Musalmān population reference is made below. Gujarāt has remained for the most part true to Hinduism, though petty Muhammadan kingdoms, as well as the supremacy of the Mughals of Delhi, have left their influence in many parts of the province—an influence to be traced in the formation of certain castes of converts, such as the Momna Kunbīs and Molesalams, looking to Islām for their religion and to Hinduism for their social structure. The former numerous political subdivisions of the province, which was for centuries split into rival Hindu kingdoms, display the effects of political boundaries on the evolution of caste divisions. The large caste groups designated comprehensively by the terms Brāhman and Vānī exhibit in Gujarāt a minuteness of subdivision elsewhere unrivalled; and the fact that many of these smaller groups bear the same name—e.g. Agarvāl, Harsola, Kapol Khadayata, Khedavāl, Mewāda, Nāgar, Osvāl, and Srimāli—lends support to the inference that a common cause of caste fusion in the past is to be traced to the influence of political boundaries.

In marked contrast to Gujarāt with its amplitude of caste divisions, the Deccan contains a comparatively homogeneous population. Of the total population of the Deccan Districts 30 per cent. are Marāthās, between whom intermarriage is permissible, provided that there is comparative equality of social position, while of the 6 per cent. of the remainder who are Brāhmans, only 13 local divisions are to be found to compare with the 170 of Gujarāt. The causes which have led in the

past to the crystallization of small fragments of castes farther north have evidently been inoperative in the Deccan.

The coast-line of the Konkan, or submontane tracts, possesses a special feature in the large number of Christians, for the most part Roman Catholic, which its population contains, and exhibits the singular spectacle of the maintenance of caste distinctions within the fold of an essentially casteless religion. The sixteenth century witnessed, in the halcyon days of Portuguese dominion, the forcible conversion of many local castes, of which the unconverted fragments remain to add to the diversity of social divisions, largely due to the arrival of numerous immigrants by sea.

The Carnatic, or Southern Marāthā Country, is the seat of Lingāyatism, a Hindu reforming movement of the twelfth century. Social divisions among the Lingāyats, who form the majority of the population in this portion of the Presidency, would seem to be based on both religion and function, according to the stage in the history of the reformation at which the convert caste accepted the new social system that it evolved.

In the Ghāt tracts of the Deccan and Khāndesh, where the broken ground and thin soil scarcely permit remunerative cultivation, Bhīl and Kolī tribes eke out a precarious existence as hunters and collectors of forest produce. They represent the nearest approach to the aboriginal inhabitants of the country.

The terms 'caste' and 'tribe' are commonly used without any clear perception of the precise significance of either; nor is it easy to arrive at a satisfactory definition which is not too greatly at variance with their common or colloquial meaning. It has been aptly said that 'caste' is the largest group based on common occupation, and 'tribe' the largest group based on common descent; but in practice the former, at least, of these definitions proves somewhat too restricted. Castes may be found which are based on religion and descent, such as the Lingāyats or Marāthās of the Bombay Presidency, while the premier caste of all, the Brāhmans, seems at the present day to be identifiable more by social precedence involving the right to perform certain ceremonies than by any common form of occupation.

The main castes and tribes, which in most instances include numerous endogamous subdivisions, number over 500; but of these only a small number exceed 100,000. In the Presidency (excluding Sind) these are, in order of numerical importance:—

1. Marāthās.
2. Kunbīs (other than Marāthā Kunbīs).
3. Kolīs.
4. Lingāyats.
5. Dheds, Mahārs, and Holias.
6. Brāhmans.
7. Vānīs.
8. Dhangars, Kurabas, and Bharvads.
9. Bhīls.
10. Rājputs.
11. Mochīs and Chamārs.
12. Mālīs.
13. Māngs.
14. Kumbhārs

15. Sutārs.
16. Agris.
17. Sonārs.
18. Hajjāms and Nhāvīs.
19. Berads.
20. Bhandāris.
21. Vārlīs.
22. Darzis.
23. Telis and Ghānchis.
24. Thākurs.
25. Lohārs.
26. Vanjāris.
27. Rabāris.
28. Ahīrs.

The Marāthās consist of 1,900,000 Kunbīs, 350,000 Konkanis, and 1,400,000 Marāthās not otherwise specified. The term Marāthā is in some respects so loosely applied that it is difficult to determine its precise significance It is variously used to describe members of various castes living in MAHARĀSHTRA, those whose mother-tongue is Marāthī, and, more correctly perhaps, to designate the descendants of Sivajī's warriors, including the present Marāthā Kunbī and the below-Ghāt Marāthā, who were the backbone of the Peshwā's confederacy. It is the common impression at the present day that the Marāthās properly so called are divided into two groups which do not intermarry, the Kunbī or agriculturist being the inferior, and the warrior, landowner, or high-class Marāthā claiming a superior origin. The latter indeed profess to be of Rājput descent, to consist of ninety-six clans or families, and to be entitled to the dignity of Kshattriya. They support their claims to ascendancy in the social scale by favouring infant marriage, forbidding the marriage of widows, and wearing the sacred thread. The Kunbī, on the other hand, does not claim to be a Kshattriya, allows adult marriages and the marriage of widows, and wears no thread to indicate the twice-born status. But the dividing line is not of the nature of a permanent barrier, and can be passed by wealthy Kunbīs with ambition in proportion to their means. There is some historical evidence in support of the claims of certain Marāthā families to Rājput descent. This does not, however, throw light on the origin of the main portion of the caste, or tribe as it should correctly be styled. The indications of a former social organization of the tribe on a totemistic basis, which are now attracting attention, would seem to point to a mixed origin for the greater number of the present-day Marāthās.

The Lingāyats, who number 1,422,000, are a religious community, resident in the southern portions of the Presidency. Having first come into prominence in the days of the religious reformer Basappa of Kalyāni, who lived in the twelfth century, they seem at first to have disregarded caste distinctions, and the social organization of the highest groups among the Lingāyats appears to be dependent on initiation to the present day. Converts who joined at a later date are ranged in subdivisions based on profession, ordinarily that of their unregenerate days, while a third class of half Lingāyats, or low castes attached to the community for menial services, is recognized. One of the tests of a Lingāyat's claims so to describe himself is his right to the *ashtavarna*

or 'eightfold sacrament.' Lingāyats of the present day are disposed to call themselves Hindus, and to apply to their subdivisions Manu's fourfold caste system.

Brāhmans number 1,053,000. Apart from the intellectual and social pre-eminence of the majority of those who so described themselves, the special feature of the Brāhman caste is its very extensive system of subdivision into endogamous groups. There are over 200 such groups, each of which is again subdivided into sections the members of which must marry outside their limits. The origin of many of these endogamous divisions is believed to have been political; geographical names, such as Agarvāl, Khedavāl, and Sihori, of which there are many, are evidence in support of this assumption. The connecting link between the numerous divisions is that of common social predominance, combined with the right to perform certain ceremonies.

Vānis, numbering 1,054,250 (Hindus 976,128), are traders. The common bond is one of occupation. Ethnically they consist of groups of widely divergent origin. The endogamous subdivisions are almost as numerous as in the case of the Brāhmans. Ordinarily, the Vāni claims to rank as a Vaishya of Manu's fourfold classification scheme, and wears the sacred thread.

The remaining larger castes and tribes of the Presidency proper may be roughly classified as follows:—

Wild or semi-civilized tribes—Kolīs, Bhīls, Berads, Vārlis, Thākurs, Vanjāris, and Ahīrs.

Shepherds and herdsmen—Dhangars, Kurabas, and Bharvads.

Low caste and menials—Dhers, Mahārs and Holias, Mochis and Chamārs, and Māngs.

Artisans—Lohārs, Sutārs, Darzis, Sonārs, Kumbhārs, Bhandāris, Mālīs, Hajjāms, and Nhāvīs.

These, with a few additional cultivating castes of the status of the Marāthā Kunbī, e.g. Agrīs, Kunbis, and Rabāris, make up the greater portion (85 per cent.) of the population of the Presidency proper. Details of the strength of the remaining castes are to be found in the census tables of 1901.

The province of Sind, which since an early period of its history has been under the sway of invading Musalmān tribes, contains a population bearing little affinity to that of the remainder of the Presidency. Here the tribal units occupy the leading place, while castes are relegated to a comparatively subordinate position.

The Musalmān tribes of the province consist of ten main groups:—

Arab.	Makrānī.
Afghān or Pathān.	Mughal.
Baloch.	Shaikh.
Brāhui.	Sindī.
Jat.	Menial and slave tribes.

In the Census of 1901 an attempt was made to ascertain the numerical strength of the most important subdivisions of these groups. The attempt was only partially successful, owing to the tendency of members of such tribal subdivisions to return the name of the subdivision only when it is one of admitted local importance. In cases where the number of unspecified was very high, the record of subdivisional strength was omitted. In the case of the Baloch tribes the record of subdivisions appears to have been successfully accomplished. The Baloch number 542,000, divided into sixteen important tribes. The Rind—with its offshoots the Dombki, Khosa, Jamāli, Jakrāni, Lighāri —includes 270,000; the Chandias, 75,000; the Burdis, 68,000; and the border tribes, Marri and Bugti, 37,000. Among the first are the Tālpurs, historically of interest as the last independent rulers of Sind.

Arabs number 261,000 in the whole Presidency, of whom 130,000 described themselves as Saiyid. Sind alone contains 122,000. The term Saiyid, strictly interpreted, means 'lord' or 'chief,' and is applicable to the descendants of the Prophet's daughter, Bībī Fatima. Some caution, however, is necessary in accepting the returns of Saiyid, the title being popular among Musalmāns who are certainly not of Arab origin, and thus not, strictly speaking, entitled to use it. A similar error may result from classing as Arabs those Shaikhs who are ordinarily nothing more than converts to Islām, whereas a Shaikh should properly signify an Arab or descendant of the Prophet's relations. Shaikhs, who number 968,000, have therefore to be kept distinct from the Arabs. The Kalhora tribe, which preceded the Tālpurs as rulers of Sind, numbers more than 23,000. The Samo and Samro divisions of the Sindī tribes controlled the fortunes of the province for seven hundred years previous to the middle of the sixteenth century. According to the recent Census these tribes are now represented by 124,000 Samros and 794,000 Samos. There are 48,000 Brāhuis, 27,000 Mughals, and 170,000 Pathāns.

The caste organization in Sind has undergone considerable modification, owing to contact with the alien and dominant social system of the Musalmān tribes referred to above. Brāhmans number 14,000, or 0·4 per cent. of the population, compared with 4·7 per cent. in the rest of the Presidency. They are a degraded and illiterate caste. With their fall from the commanding position that they occupy under a Hindu régime, their influence on subordinate castes has diminished, until, in place of a general tendency on the part of the latter to imitate their social system and religious customs, it will be found that the premier Hindu caste in Sind, the Lohānas, wear the beard of the Musalmān conqueror, and permit themselves the luxury of animal food, provided that it has been slain after the orthodox fashion of Islām.

The chief Sind castes (numbering over 4,000) are:—

Bhīl.	Kolī.	Rājput.
Brāhman.	Kurmī.	Shikāri.
Chāran.	Mazhabi Sikh.	Sonār.
Dher or Mahār.	Odd.	Vānī.
Khitri.		

Statistics regarding religion for the whole Presidency in 1891 and 1901 are given below:—

Religion.	Persons. 1891.	Persons. 1901.
Hindu	21,438,244	19,916,438
Animist	292,023	94,845
Jain	555,209	535,950
Musalmān	4,355,802	4,567,295
Pārsī	76,456	78,552
Christian	167,004	216,118
Native Christians	129,308	180,841
Europeans and Eurasians	37,696	35,277
Others	31,604	15,037
Total	26,916,342	25,424,235

About 78 per cent. of the population is Hindu, 18 per cent. Muhammadan, 2 per cent. Jain, and less than 1 per cent. Christian. No very strict line can be drawn between Animists and low-class Hindus. Hindus are for the most part either Vaishnavas, Saivas, or Lingāyats, the first being most common in Gujarāt and the last in the south of the Presidency. The leading Vaishnava sects are those of Rāmānand (fourteenth century), Vallabhāchārya (1479–1531), Swāmi Nārāyan (1780–1830), and Kabīr (c. 1400).

Muhammadans are chiefly (97 per cent.) Sunnis, though the Shiah sect is also represented, especially in Bombay, where the Ismailiya Shiahs or Khojas form an important community under the spiritual headship of the Agha Khān. They are supposed to represent the Assassins (Hashishin) of the crusading epoch. A new sect of Moslems known as the Ahmadiyyas and numbering over 10,000 was recorded in 1901. They are spiritual followers of the chief of Kādiān, who resides in the Punjab. Among Jains, the Svetāmbara, Digambara, and Dhundia sects are all represented, though the two former have numerical preponderance. The Pārsī community is divided between Bombay and Surat. Sikhs are mainly found in Sind, and Jews in Bombay and the coast Districts.

Twenty-six Protestant missionary bodies are at work in the Presidency. The work of the Irish Presbyterian Mission and the Salvation Army in Gujarāt, of the American Marāthi Mission in the Deccan, and of the Basel German Mission in the Kānarese Districts, deserve special mention. The stations of the S.P.G. and the C.M.S. are more gener-

ally distributed. Sind is included in the Anglican diocese of Lahore, and the rest of the Presidency in that of Bombay. The greater part of the Presidency is comprised in the Roman Catholic Archbishopric of Bombay, Poona being the seat of a Suffragan Bishop. Diu, Damān, Thāna, Kolāba, and parts of Bombay City are in the diocese of Damān. About one-sixth of the Christians are members of the Anglican communion, while one-half are Roman Catholics, many of these in Kanara and Thāna being descendants of converts made by the Portuguese. There are a few thousand Methodists and Presbyterians. In only five Districts does the Christian population exceed 10,000—these are Thāna, Kaira, Ahmadnagar, Poona, and Kanara. During the decade ending 1901 the Christian population increased by 30 per cent., mainly owing to conversions among the lower classes.

The classification of the people in British Districts according to occupation shows 540,000 persons (or 3 per cent. of the total) in Government service; 11,000,000 (59 per cent.) engaged in agriculture; 320,000 (2 per cent.) in trade or commerce: 3,400,000 (19 per cent.) in manufactures and arts; 590,000 (3 per cent.) in domestic occupations. These figures include dependants or persons supported by the occupation referred to in each case. The chief occupation is agriculture. The industrial section of the population in most of the rural Districts forms an insignificant section of the whole. The leading industrial Districts are Ahmadābād, Surat, Karāchi, and Shikārpur (now Sukkur), with 27, 35, 24, and 31 per cent. respectively of their population following industrial occupations.

Food is taken twice a day, between ten and twelve in the morning and eight and ten at night. For the morning meal a family in good circumstances will take rice of fine quality, split pulse boiled and seasoned with spices, cakes of wheaten flour spread with clarified butter, and some vegetables. At the evening meal there are cakes, milk boiled and mixed with sugar, vegetables, and pickles. It is rare for high-caste Hindus to eat animal food, though certain coast Brāhmans allow themselves fresh fish. The diet of the poorer classes is *jowār* or *bājra* bread, rice, split pulse, and vegetables. To this the lower castes add mutton and the flesh of fowls. The wild tribes eat the cheapest grains, such as *rāgi* and *kodra*, and partake freely of game. The unclean castes will eat anything, including the flesh of animals that have died a natural death. Musalmāns will only eat the flesh of animals killed with a prayer uttered at the time of cutting the throat. To Jains and Lingāyats of all ranks animal food is forbidden.

People of the better class do not ordinarily touch liquor. The low castes and wild tribes are fond of toddy and cheap country spirits, though excess in drinking is rare. For stimulants and narcotics, opium and tobacco are widely used in moderation. The practice of tea-

drinking, especially during railway journeys, has recently made great progress, and the habit of chewing betel-nut is almost universal with both sexes.

Fifty years ago a man's costume would have sufficed to serve as an indication of his caste. Nowadays even the types of *pagrīs* or turbans are losing their significance, and a distressing form of pork-pie cap, garnished with a border of coloured flowers, frequently tends to conceal the social status of the wearer. The heavy *pagrī* of the Marāthā, the high headdress of the Baniā, closely imitated by the head-covering of the Pārsī, the tightly bound turban of the Prabhu, and the double-peaked *pagrī* of the Bhātia can still, however, be readily identified. Most Hindus retain the fine cotton *dhotī* as a leg covering, though European influence is making itself felt in the cut and texture of the coat that covers the upper part of the body, and the shirt and collar that are to be detected underneath. Musalmāns and Pārsīs wear trousers. The women are far more simple in their costume, being commonly content with a long robe or *sārī*, wound round the legs, and drawn across the breast to fall over the head and shoulder. To this a *cholī* or short tight bodice is frequently added, and in Gujarāt a petticoat. On the other hand, they delight in a great diversity of ornaments, from gems and necklets of solid gold, such as the richer classes wear, to the long brass anklets affected by the Bhīls and gipsy women, or the many pounds' weight of beads and berries that cover the breasts of the primitive cultivating and fishing classes. For the most part the bright-coloured *sārīs* of the women are still woven on the village loom.

People of almost all classes consider it a point of honour to have a house of their own. The character of the dwelling depends mainly on the materials available, the extent of the rainfall, and the means of the owner. Where timber is scarce, roughly made mud bricks are in use, and a foot or two of solid earth on a layer of rafters serves to protect the residents from the great heat and the scanty rainfall. On the coast two-storeyed houses are common, with projecting roofs covered with country tiles. Here the poorer classes are content with wattle-and-daub huts, thatched with grass or dried palm-leaves. Houses above the Ghāts, within the zone of heavy rainfall, do not differ materially from those on the coast, though more wood is used in their construction when timber is plentiful. There is little luxury in the furnishing—a few strong wooden boxes, some tape-bound wooden cots, mattresses, cotton carpets, and the indispensable cooking-pots, make an ample outfit for a well-to-do cultivator. The poorest classes are content with a mattress and a few earthen jars.

Perhaps the most interesting characteristic of the people is their fondness for caste feasts and pilgrimages. Trade dinners are given either by the whole caste or by a member of it. Social dinners are

given by a caste member, or are held as picnics, each supplying his own food. It is usual to celebrate a family event, such as the wife's first pregnancy, an investiture with the sacred thread, a marriage, or a death, by a feast given to all the members of the caste. Several days are spent in laying in supplies and collecting cooking-pots; all lend a willing hand in the preparations. The food is distributed by the host and his family to the men and boys, who feed first, and after them the women are allowed to sit down to the feast. Among the more popular forms of sport are bullock-racing in light carriages, and ram-, cock-, or quail-fighting. Outdoor games for youths generally take the form of gymnastic exercises, including wrestling and putting a weight, though of recent years cricket has come greatly into fashion in all parts of the Presidency, and lawn-tennis is not unknown. Children are fond of kite-flying. Indoor games include chess, cards, and *songati* or Indian backgammon. Dramatic performances are popular, and some of the wild tribes are skilful in devising extempore plays for the entertainment of visitors. But the time to see the people of the country-side at their best is at the fair. At the oncoming of the hot season, when the harvest has been gathered in, the thoughts of the simple peasants will turn to one of the many shrines of the country-side. Some will shoulder the yellow flag of Sivaji, the *bhagva jhenda*, and trudge sturdily along the dusty Deccan roads to the tomb of Jnāneshvar at Alandi. Others in their best costume climb the steep slopes of Harischandragarh, to seek the tank and temples of the Gauli Rājā with shouts of 'Gyānoba Tukārām! Gyānoba Tukārām!' The sacred shrines of Gokarn will draw thousands from all parts of the Konkan and Carnatic to worship the mighty Siva, and join the merry crowd of bathers in the long rollers of the Indian Ocean. Endless bands of women-folk, packed twenty or thirty in a country cart, will rumble along for days to the rocky hill near Saundatti, making the country-side re-echo to the long-drawn cries of '*Ai Yellamma—oh!*' Happy in the anticipation of the harmless merry-making of these gatherings, the weary journey is a holiday picnic, in which good temper and stout hearts prevail, for a simple peasantry with simple pleasures, bearing with equanimity the scourge of famine and pestilence, and ever ready for the final pilgrimage when the greatest of all shrines shall lie open to them.

The joint family system is everywhere supreme. The Hindus of the Presidency generally have three names, the first their own, which is given to them on the twelfth day after birth, the second is the father's, and the third a surname (the family designation). The surnames are in some cases professional appellatives, and in others are derived from places, e.g. Belgaumkar, Poonekar, which once signified that the bearer had special rights in such places, though the significance of such terms is rapidly disappearing with their increasing popularity. The Pārsīs

have two names like the Hindus, to which they add such surnames as 'Contractor,' 'Engineer,' &c., and at times the names of their grandfathers are used in the place of surnames. Among low-class Hindus the word *bin* or *walad* (both meaning 'son') is inserted between a man's name and his father's, which is coupled to it, while women add their husband's name, after the word *kom*, to their own.

Honorific suffixes are common. Thus, in Gujarāt, *rai*, *lāl*, *shetjī*; in the Deccan, *rao*, *naik*, *sāhib*; and in the Carnatic, *appa* or *gauda*, with corresponding terms for females, such as *bai* and *amma*. *Pant* and *shet* generally denote a Brāhman and a goldsmith. The common form of address is *Rājmānya Rājeshri*. In the case of persons of lower rank *Rājeshri* alone is used. *Tirthswarup* or *Chiranjīv* are added in addressing old or young relatives respectively. To parents *Tirthrup* is used, instead of *Tirthswarup*. Before the names of married women the word *Saubhāgyavati* is used, and in the case of widows, *Gangārup*. Learned Brāhmans are styled *Vedmurti*, and the rich *Shrimant*, while in the Carnatic it is usual to address persons of rank as *Swāmi* ('lord') or *Devaru* ('god').

Agriculture.

The soils of the Presidency vary according to the natural divisions which have been already described. In Sind the soils are wholly alluvial; they vary in character from drift-sand to light clays, and are often strongly impregnated with salt. In Gujarāt they are classed in two main divisions, *kālī* and *gorādu*. The first is black cotton soil, of which extensive tracts are found in Broach and Surat. It is supposed to be the result of an alluvium brought down by the Tāpti and Narbadā rivers, and corresponds to the *regar* of the Central Provinces. *Gorādu* soils are characterized by immense depth, varying from the drift-sands of Ahmadābād to the rich loam of Kaira. They are entirely alluvial.

Characteristic of the Deccan is the black soil formed from the weathering of the trap rock, of which the broad wheat, cotton, and *jowār* lands of Khāndesh, Nāsik, Ahmadnagar, Sholāpur, Bijāpur, and Dhārwār are formed. Near the hills the soil is lighter-coloured and less rich. In the valleys of the south-west the reddish-brown laterite is terraced into rice lands, and the beds of the streams grow rice crops during the hot season. The bottom soils are clay loams of great natural fertility. These form the greater part of Belgaum and Dhārwār. The Kanara spice gardens are formed in soil closely resembling the red loam of the hilly tracts in Belgaum and Dhārwār. In the Konkan, soils are classified as rice, garden, or *varkas* (the light and poor soil of the uplands). The open tracts of land at the bottom of the coast valleys are rice lands. Where the soil is light and easily worked, with a good supply of fresh water, gardens are formed. On the uplands the *varkas* soils yield coarse grains at long intervals.

The dark deep soils described above grow the richest crops—wheat, cotton, gram (*Cicer arietinum*), *jowār* (*Sorghum vulgare*), and *bājra* (*Pennisetum typhoideum*). With irrigation the better red soils may produce spices and sugar-cane, which are still more valuable, but for the most part they grow rice. The lightest soils on the hill slopes yield coarse grains such as *nāgli* (*Eleusine coracana*), and require frequent fallows. The light soils, under a heavy rainfall, give one crop at the end of the south-west monsoon. Elsewhere the crops are divided into *kharīf* or early crops, sown from May to July and reaped from October to December; and *rabi* or late crops, sown from August to October, and reaped from February to April. In good soils a double crop is occasionally gathered, the first being sown with the early rains, and the second in October to be harvested in March or April.

The system of cultivation varies with the soil. In the black soil plains of the south-eastern Deccan ploughing is resorted to only when fields have grown foul. The surface must be kept free from weeds, and is thoroughly harrowed before sowing. Cattle-manure is applied when available, and a common method of application is by folding sheep and goats when the flocks of professional graziers pass through the country. In the uplands subject to heavy rainfall, where *nāgli* and *vari* are grown, and on the coast for rice cultivation the reddish soils are terraced with great care to hold the flow of water during the monsoon. Here the soil requires regular ploughing, and the heavy clods must be broken by manual labour before sowing commences. The seed is usually sown on a small plot of land upon which a layer of dry grass, leaves, and twigs has been burnt (*rāb*), and the seedlings are afterwards transplanted from the nursery to the fields. Sometimes the whole field is sown broad-cast. In Kolāba and Kanara the wasteful form of tillage known as *dalhi* and *kumri* was formerly common, a patch of forest land being prepared by lopping and burning the trees, and abandoned after two or three crops had been raised. The system is now dying out. Another special method of cultivation in the forest tracts is the growing of *waingan* or hot-season rice. By damming the perennial streams of the Ghāts, the river valleys are converted into stretches of verdant cultivation during the hot months. The spice gardens of Kanara yield valuable crops of cardamoms, betel, and pepper. The areca-palms and betel-vines require extensive manuring, which the garden owners provide from stable sweepings and decaying leaves. The mixture is heaped round the base of the tree, and covered with branches freshly lopped from the adjacent forest.

Where the water-supply is less plentiful, crops are raised by well-irrigation. Near large cities such as Poona, the use of poudrette is becoming popular, and in the Konkan fish-manure is often used.

Throughout the greater part of the Presidency, however, owing to the common practice of using cow-dung for fuel, and to the prejudice against certain other forms of manure, the application of fertilizing materials is carried out on a very limited scale.

In irrigated lands, crops such as sugar-cane, yams, turmeric, *suran* (*Amorphophallus campanulatus*), sweet potatoes, &c., alternate with each other. In 'dry-crop' land, *jowār* in heavy soils and *bājra* in light soils alternate with cotton. The rotation is extended by growing *tur* (*Cajanus indicus*), *til*, or a *rabi* crop of wheat when the fields have grown foul and require cleaning. The practice of growing mixed crops, i. e. leguminous crops with cereals, reduces the necessity of maintaining strict rotation of crops, the former supplying nitrogen to the soil. Nitrogen is the essential plant-food in which Indian soils are poorest.

Except in Sind and on the poorer lands of the Konkan, fallows are not common, owing in some measure to the assessment on the land being payable irrespective of whether cultivation takes place or not.

About three-quarters of the population of the Presidency are engaged in, or dependent on, agriculture. Outside the large centres of industry, such as Bombay and Ahmadābād, the population may be said to consist almost entirely of the landowning classes, and of agricultural labourers who assist in the preparation of the land for sowing, in the guarding of the growing crop, and in the subsequent harvesting operations.

The principal food-crops are rice, *bājra*, *jowār*, and wheat; rice being specially characteristic of the Konkan and wheat of Sind, Northern Gujarāt, and the Deccan, while *bājra* and *jowār* are grown almost everywhere except in the Konkan. Of non-food crops, cotton is by far the most important, and is characteristic of Gujarāt, the Tāpti valley, and the south-eastern Deccan. The average yield per acre of cleaned rice is 1,200 to 1,320 lb.; that of wheat on irrigated land 1,000 to 1,320 lb., and on 'dry-crop' land 460 to 900 lb.; that of *bājra* about 350 lb.; that of *jowār* from 1,500 lb., if irrigated, to 540 lb. if not; and that of cleaned cotton from 90 lb. in Khāndesh to 130 lb. in Broach.

Throughout the greater part of the Presidency very little cultivable land remains uncultivated. Since 1881 the area cultivated in the Presidency proper has increased from 33,971 to 47,155 square miles; and in Sind, where irrigation has been extended, the area taken up for cultivation expanded from 4,539 square miles in 1881 to 13,052 in 1903–4, and the area actually cropped from 2,821 to 5,932 square miles. No important improvement can be recorded in the selection of seed during this period, the experiments conducted with that object on Government farms not having yet achieved results that can be made the subject of more extensive trials. These farms are situated at Poona, Surat, and Nadiād. Important experiments are being made there with the object

of improving the staple of indigenous cotton and discovering a rust-proof variety of wheat.

The Land Improvement and Agriculturists' Loans Acts provide for small advances being made to cultivators for the purpose of improving their fields by digging wells, erecting protective banks, weeding, &c., or for the purchase of seed and cattle. Such advances were not unknown in the days of Marāthā rule, but until lately they have not been generally popular except in the Southern Deccan. The famines of the last few years have made the system better known; and it is probable that, as it is improved and developed, the sums expended each year will very greatly exceed the totals hitherto reached, the highest of which was 94½ lakhs in the famine year, 1900–1. Loans for the purchase of seed and cattle are repayable in short periods of one to two years, subject to the discretionary power of the Collector to extend the period to not more than ten years. Loans for the improvement of land must, in default of special sanction from Government, be repaid within twenty years, the instalments commencing from the date when the improvement is estimated to yield a return. Bad debts are rare, and the chief difficulty is to meet the very numerous demands received for advances. Agriculturists are specially protected by the Dekkhan Agriculturists' Relief Act (1879), the most important provisions of which have been extended to the whole Presidency, but many of the original peasant proprietors have become the tenants of money-lenders. Statistics of agriculture and irrigation, in square miles, for the Bombay Presidency, are shown in *Table II on p. 385*.

The cultivation of the great export staple, cotton, is sufficiently important to deserve special mention. Even before the close of the eighteenth century India exported a considerable amount of raw cotton to England, but this was mainly shipped from Calcutta. Bombay, which had previously exported cotton to China, does not seem to have entered into the business until about 1825. For many years afterwards the shipments of cotton were liable to great vicissitudes, depending chiefly upon the yield of the American crop. But the Indian cultivators found their opportunity when the war between North and South in the United States cut off the supplies of the English manufacturer and caused the 'cotton famine' in Lancashire. During the five years ending with 1853–4 the export of cotton from Bombay had averaged less than 1⅝ million cwt., valued at 250 lakhs; in the five years ending with 1868–9 the average quantity had risen to 3¾ million cwt., and the average value to nearly 20 crores. In the single year 1864–5 the value reached 30 crores. A collapse came in 1865, on the termination of the American Civil War. Prices have fallen very heavily, but the quantity of cotton grown is maintained. In 1880–1 the extent of land under cotton in the whole Presidency, including Sind and Native States, was returned at

6,563 square miles. Of this area, 5,469 square miles were planted with indigenous and about 1,094 square miles with exotic cotton. The quantity exported in the same year was returned at over 3⅛ million cwt. from Bombay, and 100,000 cwt. from Sind. By 1891, the area under cotton (exclusive of Native States) had increased to 4,934 square miles, and the total exports to 4⅝ million cwt. In 1901, owing to the drought, the area decreased to 3,701 square miles, and the exports to less than 3 million cwt.; but in 1903-4 the area was 5,906 square miles, and the exports were 6·7 million cwt., of which Germany and Japan each took about 1·4 million cwt., Belgium and Italy 0·9 million cwt. each, Austria 0·7 million cwt., and the United Kingdom 0·4 million cwt.

The growth of the local mill industry has naturally been accompanied by a largely increased local consumption of cotton, the Bombay mills being almost entirely dependent on the indigenous variety. This is a short-stapled cotton which is not suitable for the spinning of yarns above 32's. Cotton of longer staple when sown in the best cotton-growing tracts soon degenerates to the local standard. Numerous efforts have been made by Government and private persons to introduce a seed that will furnish a better stapled cotton, but hitherto with little success, except in SIND. The most recent experiments have been directed towards the production of a hybrid possessing the hardiness of the local plant and a staple resembling that of imported cottons.

The Bombay Presidency was formerly famous for its hardy ponies which supplied the Marāthā cavalry with their means of rapid movement. The most valuable breeds were the Kāthiāwāri, and the Deccan ponies from the Bhīmthadi or valley of the Bhīma river. Both breeds are still met with, though the latter is now very nearly extinct. Efforts are made by Government to improve local stock by maintaining stallions, chiefly Arabs, at central stations, and by annual horse shows, at which prizes are offered for promising young stock or good brood mares. Up to the year 1903-4, 46 stallions were thus maintained; but, on May 31, 1903, 31 of them, located in Poona and Ahmadnagar Districts, were transferred to the charge of the Army Remount department. At present the Civil Veterinary department has only 12 stallions, 6 of which are located in Gujarāt. Annual shows are held at Ahmadnagar in the Deccan and Jacobābād in Sind. Locally bred ponies are hardy and make good hacks; but they are frequently under-sized, vicious, and ill-formed. The horses in use are mainly imported Arabs, Persians, and Australians, the trade in which centres in Bombay City.

A military remount dépôt exists at Ahmadnagar in the Deccan, where young stock are kept in paddocks, and are trained to draught and saddle. Mules and donkeys are numerous, the former being used for military purposes, and the latter, which are usually under-sized and ill-nourished, for the conveyance of earth and stones.

Cattle are in general allowed to breed promiscuously. Good milch cows are raised in the Gir forest of Kāthiāwār, while the plains of Gujarāt support cattle of exceptionally fine type, large, big-boned, powerful, and docile. The best cattle in the Deccan are bred in the Kistna valley, but throughout the greater part of the Deccan and Carnatic the cattle are of no fixed type or particular breed. They are small, hardy, and active. In Sind good cattle are bred, of medium size but sturdy proportions. The milch cows are well known and are exported to other parts of the Presidency. The following prices are obtainable for cattle of these different descriptions: Gir cow Rs. 60, bullock Rs. 75; Gujarāt cow Rs. 80, bullock Rs. 125; Deccan cow Rs. 50, bullock Rs. 35; Sind cow Rs. 70, bullock Rs. 35.

Buffaloes are of four types: namely, Jāfarābādi, Delhi, Surati, and Deccani. They are usually kept for milk, but in Districts of heavy rainfall buffaloes are often used for draught purposes in preference to bullocks. A good cow buffalo fetches Rs. 150. Sheep and goats are numerous throughout the Presidency. The former are of four breeds: Gujarāti, Deccani, Rājputāni, and the *dumba* sheep of Sind with a fat tail. The wool of all varieties is short, coarse, and hair-like, and is chiefly used for the manufacture of country blankets. Goats are regularly milked, and their flesh forms a common article of diet. The number of cattle was greatly reduced by the famine years between 1896 and 1901. In Sind more than 100,000 camels are used for the conveyance of passengers and goods in the desert.

The broad plains of Sind and Northern Gujarāt furnish abundant pasture. In Central Gujarāt the best milch and plough cattle are stall-fed, while the herds of the Deccan for the most part pick up what they can on the borders of the fields, except where, as near the Ghāts, there are forest lands open to grazing. There are no great yearly cattle fairs. The common cattle diseases are rinderpest, foot-and-mouth disease, and anthrax. There are in the whole Presidency 21 veterinary dispensaries, at which 34,320 animals were treated in 1903–4.

The Civil Veterinary department of the Presidency, which is under the control of the Director of Land Records and Agriculture, is responsible for horse-breeding operations, having twelve stallions in its charge for this purpose, and also supervises the working of the various District veterinary dispensaries, seventeen of which are stationary, while four are travelling dispensaries, each in charge of a veterinary graduate. The largest hospital under this department is at Parel on Bombay Island. Horse-breeding operations in Sind are controlled by the Superintendent, Civil Veterinary department, Baluchistān and Sind, under the direct supervision of an Inspector-General for all India.

All tillage in Sind is dependent on the rise of the Indus, which takes place from March to August owing to the melting of the Himālayan

snows. The fields are watered either by lift or by flow from innumerable canals and watercourses. The chief systems which take off from the right bank of the river are the Begāri, the Desert, the Ghār, the Western Nāra, and the Unharwah canals; and from the left bank, the Eastern Nāra, the Dād, the Nasrat, the Fuleli, and the Jāmrao.

In the rest of the Presidency 'dry' and 'wet' crops are found everywhere side by side. Wells are the chief source of irrigation, but canals have also been made, which are supplied with water either from artificial tanks or from rivers which have been dammed up. The largest of such canals are the Nīra at Poona, which is fed by the river Nīra and a reservoir at Bhātghar, and the Gokāk canal in Belgaum District, which draws its supply from the river Ghatprabha and from storage works. Outside Sind the irrigation revenue is raised by a special assessment in addition to 'dry-crop' rates on land irrigated from all works for which capital and revenue accounts are kept, except in the case of some small systems. From old works, for which only revenue accounts are kept, a revenue of about 8 lakhs is derived. The irrigation share of this sum is about 5 lakhs, but this is not credited in the Finance Accounts to irrigation but to land revenue. There is a third class, called Agricultural Works, or works for which neither capital nor revenue accounts are kept, yielding a revenue of about Rs. 12,000 wholly credited to land revenue. The revenue is collected by the Revenue department. In the Presidency proper the total capital outlay on irrigation works up to 1903-4 was about 3 crores; the cost of maintenance during 1903-4 was about 3 lakhs, and receipts during the same year about 8¼ lakhs, giving a return of nearly 1·89 per cent. on capital outlay. The figures include twelve 'major' works and thirty-one 'minor' works for which capital and revenue accounts are kept.

Tanks are specially numerous in the Southern Carnatic, where almost every village has one, from which coco-palms, sugar-cane, and other rich crops are irrigated. The tendency is for such reservoirs to silt up rapidly, and funds are not always readily available for their clearance. Forced labour is no longer exacted for the repairs of these works, though voluntary subscriptions are accepted.

Wells used for irrigation in the Presidency, exclusive of Sind, numbered 241,600 in 1903-4. They are of two kinds: *pakkā* or masonry wells, costing from Rs. 250 to Rs. 750, and averaging 10 to 20 feet in depth; and *kachchā* or unfaced wells, mere holes in the earth, used for one season, and costing from Rs. 10 to Rs. 50, according to the depth at which water is found. From these wells a few acres of wheat, gram, sugar-cane, fodder-crops, &c., are irrigated, according to the nature of the soil. They are worked either by a *rahāt* or Persian wheel (an endless chain of buckets), or by a *kos* or *mot*, a large leathern bucket, so suspended as to discharge itself on rising to the surface. The motive

power is supplied by a pair of bullocks advancing and retreating on an inclined plane, or moving in a circle. In a few cases a hand-lever and bucket are used to raise water near the surface. Wheat, rice, and sugar-cane are the chief irrigated crops.

Fisheries.

The sea fisheries are important and give employment to numerous castes, chief of which are the Kolīs. Pomfret, sole, stone, and lady-fish are sold fresh, while others, such as the *bombil*, are salted and dried. Large quantities of small fry are sold as manure. The *palla*, found in the Indus, and the *maral* and mahseer are the principal fresh-water fish.

Rents, wages, and prices.

In the greater part of the Bombay Presidency land is held on the *ryotwāri* system and is in the occupation of the cultivator, who pays revenue direct to Government for his holding. When, as frequently occurs, he has alienated his holding to a member of the non-cultivating classes as security for a loan, the rent exacted from him for continuing to cultivate the land depends very largely on the will of the money-lender. It may be roughly asserted that the occupant is left enough to cover the cost of cultivation and to allow a bare subsistence for himself and his immediate relations. The rest of the produce, after defraying the Government assessment, passes into the hands of the *sāhukar* (money-lender) until the debt is paid off. Land held by females and persons unable to cultivate it themselves is usually sublet for a rent amounting to half the produce after deducting expenses of cultivation.

Rents of these descriptions are generally levied in kind, in contrast to the Government demand, which is payable in cash. Originally payments in kind for rent were universal, and this system is still common in the estates of Gujarāt and Kāthiāwār where land is held by a class intermediate between the state and the ryot. It is usual to set aside a share of the grain for the cost of cultivation and for special cesses, such as the hereditary village servants are entitled to levy. The remaining produce is divided equally between landlord and tenant. An interesting light is thrown on the probable value of land to the cultivator by the fact that good land will frequently sell for fifty times the Government assessment, and will pay a money rent of from two to seven times the assessment.

The summary process of revenue courts is only put into force to enable landlords to recover rent from their tenants when the revenue officer is satisfied of the fairness of the demand, and when assistance is called for during the year in which the rent is payable. Otherwise the landlords must have recourse to the civil courts, where, under the provisions of the Dekkhan Agriculturists' Relief Act, their claims may be regulated on an equitable basis. The result of this Act has been in some cases to lead to a more equitable adjustment of the burden on

the borrowers than was previously possible; but it has also led to evasion, by the exaction of a deed of sale from the borrower in place of a mortgage bond. In newly occupied land on the Sind canals, and in certain cases in the Presidency proper, it has recently become the practice to make the occupancy right conditional on the holding not being alienated and thus to protect the occupant against himself.

The rates for skilled and unskilled labour in the different divisions of the Presidency are: in Sind, skilled 12 annas to R. 1 a day, unskilled 4 annas to 8 annas; in Gujarāt, skilled 8 annas, unskilled 3 annas; in the Deccan, skilled 9 annas, unskilled 3 annas; in the Konkan, skilled 10 annas, unskilled 4 annas; in the Carnatic, skilled 12 annas, unskilled 4 annas. Women, as a rule, earn two-thirds of a man's wages, and children one-half. Payment of agricultural wages in kind is common throughout the Presidency, grain being given at the rate of 12 to 15 lb. for a man, 8 lb. for a woman, and 4 lb. for a child per diem. In Bombay City the demand for labour and high cost of living have raised the daily cost of unskilled labour to 6 annas for a man and 4 annas for a woman. Skilled operatives in mills and factories earn at least double these rates, the following being the average rates of wages:—

	Rs.	a.	p.		Rs.	a.	p.
Blacksmith	0	14	11	to	1	3	0
Fitter	0	8	0	to	1	4	0
Carpenter	0	12	0	to	1	2	0
Bricklayer	0	12	0	to	1	0	0
Mason	0	12	0	to	1	0	0
Weaver (man)	0	7	6	to	0	8	0
Spinner (man)	0	8	0	to	1	0	0
Dyer	0	8	0	to	0	9	0
Engine-driver	0	12	9	to	1	11	0
Boiler-man	0	5	8	to	0	9	0
Messenger	0	5	0	to	0	5	10

In the export season the great demand for unskilled labour raises its remuneration to 8 annas and over a day, as much as R. 1 a day being paid in times of brisk trade and a scanty supply of labour. Such a rate can, however, remain in force only for a few days, as it serves to swell rapidly the available supply from the almost limitless reserves of the Ghāt villages, whence cultivators proceed in large numbers to Bombay to work for a few months and return with their savings to their villages, either at the Holi festival (March) or at the commencement of the south-west monsoon. It is a noticeable feature of the Bombay industrial market that weavers are attracted from regions as remote as the United Provinces.

It is difficult to arrive at conclusions regarding the progress of prices in the case of the staple food-grains during recent years, owing to the fluctuation in the value of the rupee and the effect of famine years

on the general level of prices. The average cash rates per maund of 40 seers (about 80 lb. avoirdupois) have been as follows:—

	Jowār. Rs. a. p.	*Bājra.* Rs. a. p.	Rice. Rs. a. p.
1880-1 . .	1 15 4	2 5 8	4 0 0
1890-1 . .	1 14 0	2 2 0	3 14 0
1900-1 . .	2 10 1	2 13 6	4 0 0
1902-3 . .	2 0 9	2 3 10	3 10 5
1903-4 . .	1 10 8	1 12 0	3 13 0

The actual rates at the chief centres of trade in the Presidency are given in Table III on p. 386. The recent years of famine and bad harvests have been largely responsible for the excess in price-levels of 1900-1 over those of earlier years. Grains such as gram (*Cicer arietinum*), which are used for food in a less measure than *jowār*, *bājra*, and rice, have risen in price far more than the staple foods. There is no evidence that rates of wages have risen with the price of food, but the system of recording prices current in the Presidency does not seem to justify complete confidence in these data.

The material condition of the people differs little in the various parts of the Presidency, though the standard of comfort among the proletariat is lowest in the case of the wild tribes and highest in the wealthy cities of Gujarāt. For the ordinary cultivator a daily ration of 2 lb. of grain with a little vegetable and spice, and an annual supply of coarse cloth, a little tobacco, and some betel-nut, generally represents the sum of his requirements. A few rupees must be spent on country-made *sārīs* for his women-folk, and perhaps, if the harvest is a good one, a few more will be devoted to joining the annual pilgrimage to some popular shrine. With the hill tribes this modicum of necessaries is reduced by a simplification of the costume, which consists of a head-scarf and a few inches of cloth at the waist. The diet consists of the coarser grains, *rāgi* and *nāchni* replacing *jowār* and rice. An occasional bout of drinking will offer the only opportunity for spending a few coins from their scanty earnings.

Among village officials and middle-class clerks the standard of comfort is undoubtedly rising. A new fashion in clothing, and an increasing use of cheap European commodities, offer objects of expenditure unknown to previous generations. Houses with some pretension to comfort replace the mud hovel of the labourer or the mat shelter of the wandering hillmen; and in the case of a rising official or prosperous trader, the house will be supplied with articles of furniture, such as lamps, chairs, and tables, in European style.

It seems probable that the majority of the community, that is to say, the agriculturists, can live in comfort on an average daily income of from 3 to 4 annas; while the petty officials and village merchants would experience no difficulty in maintaining the standard of their class on

a monthly average of from Rs. 20 to Rs. 30. In this and the superior ranks of society the influence of European fashions is specially noticeable.

Forests.

The forests of the Presidency extend over an area of about 15,000 square miles, varying in type from the *babūl* groves of Sind to the magnificent timber tracts of the Western Ghāts. They may be classified as (i) *Babūl* forests, in which this species is mixed with *Prosopis spicigera* and *Tamarix dioica*. (ii) Scrub jungle, merging gradually into fuel and pole forests. (iii) Mixed forests, in which are found teak poles and larger timber of the less valuable kinds, such as *ain*, black-wood, *anjan*, *dhowra*, *bibla*, *hed*, and *kalam*. (iv) High timber forests, chiefly found in North Kanara District and in Western Khāndesh. The valleys of the Kālīnadī in Kanara produce excellent teak, in association with bamboo, *Dalbergia Sissoo*, *Terminalia tomentosa*, and *Xylia dolabriformis*. In Khāndesh also teak of good quality is present, though there the stock has suffered much from fire and shifting cultivation. (v) Evergreen forests of varying constitution, consisting in places of mere scrub jungle, but also containing dense groves of lofty trees whose timber is often valuable in the cabinet-maker's trade. These forests extend along the line of the Western Ghāts from Khāndesh to Kanara.

About 600 square miles of forest are set apart as pasture land, and the remainder is, in respect of technical management, placed in charge of the Forest department. For purposes of control, the forests of the Presidency proper are divided into the Northern circle, with 1,667 square miles of 'reserved' and 652 square miles of 'protected' forests; the Central circle, with 6,259 square miles of 'reserved' and 99 square miles of 'protected' forests; and the Southern circle, with 4,495 square miles of 'reserved' and 568 square miles of 'protected' forests[1]. These circles correspond closely with the Revenue Divisions, and each is supervised by a Conservator, who is furnished with the usual staff of deputy and extra-deputy-Conservators, assistant and extra-assistant Conservators, rangers, foresters, and guards. This staff consisted in 1904 of 24 Imperial Service and 23 Provincial Service officers, and of 47 rangers, 168 foresters, and 3,394 guards, maintained at a cost of about 6¾ lakhs per annum. The forests of Sind, which are included in the figures last given, comprise 1,066 square miles of Reserves, and are similarly supervised by a Deputy-Conservator, who exercises the power of a Conservator. Responsibility for the executive management of the forests of each District, save in matters relating to professional forestry, is vested in the Collector, who issues his orders direct to the divisional Forest officer. Conservators confine their attention to purely professional matters of forest management, and do not interfere in details of administration.

[1] The figures are for 1903-4.

In spite of the care which is taken to control forest operations in the interests of the people, these operations are not popular, as the mass of the population are unable to comprehend the necessity of foresight in forest utilization. The peasant is as a rule wasteful in the extreme: he will not hesitate to burn a valuable forest for the sake of a temporary supply of green fodder or to lop and fell trees in order to provide manure for his crops, without thought as to whether the supply of forest produce will continue to meet the needs of his successors. In the same way, accustomed as he is to permit his cattle to graze at will throughout the whole forest area, he resents measures taken to protect the regrowth from their depredations, while ignorance of the rights or privileges that have been accorded to him by Government too often places him at the mercy of the members of the subordinate forest staff, whom it is at times impossible to restrain from taking advantage of their official position. The illicit grazing of cattle in areas under regeneration is often a serious check to both the improvement and the sustained yield of the forest; and another source of injury exists in the practice of shifting cultivation, which, before systematic regulation came into force, was responsible for the destruction of large forest areas. Such systematic regulation has, however, been effective in Khāndesh, where Bhīl settlements are located in various Reserves, and in Thāna, Kolāba, and Kanara, where suitable lands have been allotted for dry-ash cultivation.

It has already been remarked that intentional firing of the forests with a view to obtaining a fresh crop of grass is not uncommon, and much damage is also caused by conflagrations due to the carelessness of wayfarers and other accidental causes. The system of fire conservancy consists in the clearing of fire-lines and the protection afforded by patrolling guards. In 1903-4, when 9,441 square miles were under protection from fire at a cost of Rs. 42,905, no less than 1,572 square miles were nevertheless burnt. The annual proportion of failures in fire conservancy averages about 16 per cent.

In the case of forests which are commercially valuable, working-plans have been prepared in order to regulate felling and regeneration, and to define the areas in which the exercise of local rights of grazing and cutting is to be enjoyed. These working-plans are compiled by the officers of the Forest department, with the approval of the Collector and the sanction of Government. They are based on the principle that the forest interests must be subordinated to those of the agricultural population when there is any conflict between them.

The yield of the forests may be divided into major and minor produce. In 1903-4 the output of timber was 4,740,000 cubic feet, realizing about 15½ lakhs. The production of first-class logs is confined almost exclusively to the Kanara forests, whence the timber is brought

to dépôts on the Southern Mahratta Railway. It consists of teak and black-wood of very fine quality, which commands a ready sale, while at the same time these forests yield annually about 100,000 sleepers of teak and jamber. From the forests of Kanara, Belgaum, Dhārwār, Thāna, and Khāndesh several hundred thousand teak rafters used in native house-building are exported. Firewood sales in 1903-4 amounted to nearly 47,000,000 cubic feet, of an estimated value of 6½ lakhs. The North-Western and Southern Mahratta Railways receive the bulk of this out-turn, and the remainder is absorbed in the Bombay market or utilized locally. Besides this, large quantities of fuel are granted free of charge to those living in the vicinity of the forests. The yield in minor forest produce is also of importance. In 1903-4 the revenue derived from this source amounted to Rs. 1,60,000 (exclusive of 3½ lakhs derived from grazing and grass), of which the chief item was myrabolams, exported to Europe for tanning purposes. Next in importance come *rosha* grass, catechu or cutch, wax, honey, lac, *mahuā* flowers, sago, *shikakai*, spices such as cinnamon and nutmeg, *babūl* pods, leaves, bark, and medicinal seeds and roots. As a rule the collection of these products is carried out by contractors.

The total forest receipts and expenditure for the financial year 1903-4 amounted to 27·5 and 17·7 lakhs respectively, giving a surplus of 10 lakhs. The average figures for the ten years ending 1890 were about 26 and 16 lakhs, and for the following decade about 32 and 20 lakhs respectively. The surplus is mainly provided by the Southern circle, while the Central circle shows a deficit.

Mines and minerals.

With the exception of building stone and salt, the production of minerals in the Bombay Presidency is insignificant. The best stone for building is extracted from quarries near Porbandar and Dhrāngadhra in Kāthiāwār, whence it is carried by sea in large quantities to Bombay. The production of salt is described below. Parts of Dhārwār District are believed to have yielded in the past considerable quantities of gold. Even now small quantities of gold-dust are washed in some of the streams; and in the east of the District, where the hills are known to contain gold, prospecting operations yielded favourable results, and a company with English capital is now at work. Mining operations undertaken recently at Alnāvar in the same District were unsuccessful. Agates are found in small quantities in the Deccan and Gujarāt.

Arts and manufactures.

In the Bombay Presidency many years of competition between machine-made and hand-woven cotton cloth have still left a very considerable home industry, the hand-loom being at work in almost every District. The output is, however, for the most part confined to *sāris* and turbans, with a certain quantity of grey cloth of the very coarsest kind.

Hand-spinning is not yet extinct, but is rarely relied on by professional hand-weavers for their supply of raw material.

The number of hand-workers employed in cotton-weaving in 1901 was 183,000, with 167,000 dependants. They are for the most part Hindu Koshtis, Sālis, Hatkars, and Devangs, with a certain number of Musalmāns known as Julāhās and Tais. The Districts of Poona, Nāsik, Sholāpur, Dhārwār, and Belgaum are noted for weaving; but the highest point of excellence is reached in Ahmadābād and Surat, where some of the most skilful weavers in India are to be found. In the manipulation of designs woven into the cloth they are on a level with the best workers of Madras. The hand-made cotton fabrics compete in the market with an immense import of machine-made goods, but the few fabrics for which the workers still hold a reputation will probably continue for many years to be in steady demand.

Dyeing of both yarn and cloth is carried on wherever sweet water can be found, and supports a population of 36,000. In the north of Gujarāt the favourite colour is red, and in Kāthiāwār red, deep-brown, and yellow. Blue and green, along with red and yellow, are more prevalent in South Gujarāt and in the Marāthā Districts. In addition to village dyers, about 1,900 persons are employed in three steam dye-works at Bombay and in one at Ahmadābād, which yearly turn out goods (chiefly turkey-red) to the value of 30 lakhs. The old native vegetable dyes have been superseded by alizarine and similar colours. These, though cheaper, more easy to apply, and quicker in taking effect, are at best often harsh and glaring and soon fade. In Sind and in the Gujarātī-speaking Districts printed cotton goods are extremely popular, whereas Marāthās usually wear plain stuffs of cotton and silk, dyed in the thread, and decorated with metal-leaf, or with a simple border and a fringe (*badar*) of a different colour at one end. *Chandari* or knotting is another method of decorating cotton and silk goods.

About 63,000 people are supported by silk manufacture. The raw material is imported from China, Bengal, Persia, or Bangalore, either in the cocoon or in skeins, both raw and dyed. Silk goods are manufactured at Ahmadābād, Surat, Yeola, Nāsik, Thāna, and Bombay, all by hand-workers, except in the case of two mills with about 1,200 operatives at Bombay and one mill at Poona. The material is often decorated, with printed or woven designs, knot-work or embroidery, and is prepared chiefly for *sārīs*, brocades (*kamkhwabs*), trouser stuffs, and turbans.

Wire-drawn gold and silver threads are largely used in ornamental edgings for *sārīs*, the richest of which are made at Poona and Yeola. At Bombay also gold and silver thread are used for making lace, but everywhere imported thread is displacing the locally spun article. Embroidery on silk and cotton cloth in gold, silver, and silk thread is

produced at Hyderābād in Sind, chiefly for the European market. The best silk embroidery is produced at Navānagar and Gondal in North Kāthiāwār, though Cutch gets the credit of the manufacture. Baroda, Surat, and Bombay also supply embroidery to Muhammadans and Pārsīs.

There are three woollen mills in Bombay with 385 hands. Woollen goods are in little demand. The only important product is the country blanket made in the Deccan and Carnatic by the Dhangars from home-grown wool. In Sind saddle-cloths and blankets and felts are made. About 50,000 persons in all parts of the Presidency are employed in cutting, retting, and scutching *san*-hemp for export, in twisting and spinning hemp, flax, and coir into ropes and cordage, and in plaiting and weaving them into mats, nets, and sacking for export and home use. The custom of investing savings in gold and silver ornaments gives employment to many goldsmiths throughout the Presidency. The metal is usually supplied by the customer, and the goldsmith charges for his labour from 8 annas to Rs. 2 or Rs. 3 the *tola*, which is somewhat less than ½ oz. avoirdupois. The poorer classes often wear ornaments of baser metal. Sind goldsmiths' work is very beautiful, but is rarely seen outside that province. The well-known Cutch gold- and silver-work is embossed by hand on a backing of soft lac. Many Cutch silversmiths have settled in Ahmadābād, Bombay, and Karāchi. Silver-ware similar to the Cutch work is made at Ahmadnagar in the Deccan, and strong and massive articles of gold and silver are produced in Kāthiāwār. The women of Gujarāt prefer ornaments of a plain and massive style, while those of the Deccan favour lighter and more intricate patterns. Nāsik and Poona are both celebrated for their brass-ware, and Bombay and Ahmadābād produce large quantities of copper vessels which are sent to almost every part of Western India. The copper is all imported from Europe in sheets and is hammered into shape by the local workmen. The cutlery and agricultural implements required by the people are still for the most part made locally by the village Lohār or blacksmith. The only goods which have more than a local reputation are the spear-heads of Ahmadnagar, the knives and other tools of Amod in Broach, and the swords, spear-heads, and chain armour of Cutch, Kāthiāwār, and Baroda.

The importation of kerosene oil in tins has given rise to a new industry. Enterprising Bohras in Bombay and up-country buy up the empty tin cases at from 2 to 2½ annas each, and fashion them into lanterns, kerosene lamps, cash-boxes, travelling-trunks, oil and *ghī* pots, and other cheap articles. There is a tin factory in Bombay with 70 workers. Glass-making is confined to bangles and fancy articles, for which the chief centre is Kapadvanj. Lac is collected in Khāndesh, and used in making bangles in the Pānch Mahāls and in lacquering

furniture in Sind and Gujarāt. In Bombay and Gujarāt bangles are also made from imported ivory and tortoise-shell.

Coarse pottery is made almost everywhere, but glazes are seldom used. The best is made in Sind, whence the industry taught in the Bombay School of Art is derived. The humble brick-kilns of the local Kumbhār or potter have held their ground against steam factories.

Ahmadābād and Surat are the chief centres of wood-carving. Carved black-wood furniture is out of fashion, but house fronts and wall ornaments are still popular. The best work in sandal-wood is done in Kanara. Country carts are made in every large town, and pony tongas at many places in the Deccan. Native boats are built at most of the coast ports, especially in Surat and Kanara. Certain low castes all over the Presidency are expert at weaving matting and baskets of split bamboos. Shoes, sandals, harness, water-skins, and other leathern articles in general demand are made by the local Mochī, who is found in every village. He is usually his own tanner, and prepares his materials with the aid of the bark of the *babūl* tree. Large numbers of people are employed in the curing of hides for exportation, of which 38 lakhs' worth are sent to Europe yearly. In one factory leathern industries are carried on by the aid of machinery. Very good boots and shoes, saddles, and bags are made in European fashion by native workmen under European superintendence at Bombay and Poona. Fancy articles of bison and other horn are moulded and carved with considerable skill in Ratnāgiri and Kanara. Country cigarettes (*bidīs*) are made on a large scale at Bombay from up-country tobacco, chiefly from Gujarāt and the Deccan. The best snuff comes from Viramgām in Ahmadābād. Attempts have been made at Kaira to manufacture cigars to suit the European taste, but without success. Sugar is made wherever the cane is grown, and very largely in Thāna and Khāndesh. Except in parts of Sātāra and Ahmadābād, iron roller-mills have superseded the primitive wooden sugar-mill. Oil-presses are numerous in every District, and oil is extracted from castor-seed, sesamum, rape-seed, poppy-seed, *mahuā* (for soap-boiling), linseed, ground-nuts, and coco-nuts. In some branches the local industry has suffered by the competition of kerosene oil, but this loss has, to a great extent, been balanced by the great and growing demand for vegetable oil for machinery. Grass oil is made in Pimpalner and West Khāndesh. Two steam-power oil-mills are at work in Bombay, and another at Ahmadābād. The trade in clarified butter is very great, being of special importance in Kaira and Khāndesh. Large quantities of *ghī*, some of which is more or less adulterated with animal fat, are exported to Rangoon. There are a few model dairies producing good butter in Bombay and Poona.

Salt is made in large quantities in the Government works at Khārā-

ghoda and Udu in Ahmadābād, and is exported by rail to Gujarāt and Central India, where it is known as Baragara salt. Sea-salt is very largely made on the Konkan coast for export to Malabar and Bengal. There are numerous small ice and soda-water factories in the larger towns. Though rice-husking is chiefly carried on without machinery, steam rice-husking mills have been started with success at Bulsār, Ahmadābād, and Chinchni in Thāna. Flour-grinding is still a domestic industry in most places except Bombay.

High art hardly exists, though Portuguese, Pārsīs, and Hindus have done creditable work in illustration, design, and sculpture. Excellent English printing comes from presses managed by Europeans. Vernacular printing is improving, especially in Bombay, where the demand for newspapers and new books is rapidly increasing.

Within the last twenty or thirty years the spinning and weaving of cotton by steam machinery has become an important industry, a development favoured by the proximity of the supply of raw material. The first mill was started in Bombay in 1857. By 1881–2 the number had increased to 49, and the industry has since expanded steadily, until in 1904–5 there were 133 mills, exclusive of 2 hosiery factories, in the Presidency, and 3 others situated in Native States. Of the 133 mills, 55 were weaving and 78 spinning-mills.

Details of the cotton-mills are given in the following table:—

	1881–2.	1891–2.	1901–2.	1904–5.
Number of mills	49	96	129	136
" looms	13,046	19,117	31,262	35,887
" spindles	1,237,536	2,380,178	3,353,729	3,573,564
" hands employed	37,567	79,951	119,929	132,170

For many years the mills produced mainly yarns, chiefly of coarse counts, to meet the demand of Indian hand-weavers and of the China market; but of late years many weaving-sheds have been erected. The best mills can now produce fine cloth manufactured from imported high-count yarns, and coloured as well as fancy goods of superior description. During the years of famine and plague between 1896 and 1901, the industry passed through a period of depression, but brighter prospects are in store when the trade assumes its normal course. The cotton-mills consume annually about 6,000,000 cwt. of raw cotton. The output amounts to 415,000,000 lb. of yarn and 112,000,000 lb. of cloth for the whole Presidency (including Native States). Eighty-six (including 2 hosiery factories) of the mills are found in Bombay City and Island, where the moist atmosphere favours the process of spinning and weaving. Outside Bombay, the city of Ahmadābād is the only centre of importance. The chief articles manufactured are yarns of counts up to 32's, *dhotis*, shirtings, *chadars*, T cloths, sheetings, coloured

and fancy goods. A large local demand exists for the products of the mills; and there is also an export trade of considerable value, amounting to about 318,000,000 yards of cloth and 280,000,000 lb. of yarn annually, with a total value of about 14 crores. The mills in Bombay draw large numbers of labourers from the Konkan Districts of Kolāba and Ratnāgiri, and from Sātāra, Poona, and Ahmadnagar in the Deccan. These, for the most part, return to their homes at intervals for such agricultural operations as their continued connexion with the land requires. They earn good wages, which average for a man 8 to 12 annas, for a woman 4 to 6 annas, and for a child 2 to 3 annas daily. The hours of labour for women and children are strictly regulated by the Indian Factories Act; and it does not appear that the work has any ill effect on the physique of the operatives, who compare not unfavourably with other labouring classes.

Including cotton-mills, 432 factories, within the meaning of the term in the Factory Act, were at work in the Presidency in 1904. Of these, 213 are open throughout the year and 219 at special seasons only. The City and Island of Bombay and the Districts of Khāndesh and Ahmadābād contain the majority of these factories. Of the total number of operatives (182,910) employed in these factories, 146,208 are engaged in mills and factories dealing with cotton, 1,621 in other textile industries, such as wool and silk-weaving, 3,506 in printing presses, 561 in flour-mills, 27,336 in workshops, and 3,678 in miscellaneous works. The ginning, cleaning, and pressing of cotton occupies 216 factories, the majority situated in the rich cotton tracts of Khāndesh. There are fourteen iron and brass foundries, mainly in Bombay City, and a few flour-mills, printing presses, railway workshops, oil-mills, or mills for spinning and weaving silk and woollen goods. The recent attempts to start factory industries in matches, paper, carpets, and leather have not so far developed industries of importance. It is estimated that the total factory population of the Presidency, including workers and their dependants, amounts to about 250,000.

Commerce and trade.

Before the Marāthā Wars, which led to the annexation of most of the present Bombay Presidency (excluding Sind), trade was carried on with the dominions of the Mughals and Marāthās through the Company's settlements at Bombay and Surat. Thence many a deeply-laden East Indiaman set sail, carrying fine cotton goods and spices for the London market. With the acquisition of Sind in 1843 the Presidency assumed its present configuration. Since then the trade with Europe has naturally been drawn to Bombay, which has the finest harbour in India, while the produce of Sind and the Punjab is exported from Karāchi. Both have benefited largely by the opening of the Suez Canal and the consequent abandonment of the Cape route (1869). In the harvest season the broad plains

of the Deccan and Carnatic furnish a steady stream of cotton, wheat, and seeds to the shipping in Bombay harbour, while Karāchi exports wheat drawn from the irrigated areas of the Indus valley. In exchange, these ports receive numerous imports, of which the chief are cotton goods, metals and machinery, sugar, and kerosene oil. Aden is a port of call for the trade between Europe, East Africa, and Asia, and has a considerable local traffic in coffee with Arabia and the Somāli coast. A small direct trade is carried in native craft between Broach, Bulsār, Surat, Honāvar, and ports in Arabia and the Persian Gulf. The distribution of trade from the larger ports along the coast-line is carried on by coasting steamers and native craft during the fair season. Bombay, Karāchi, and Aden have Chambers of Commerce and Port Trusts, and Bombay and Ahmadābād have influential associations of native piece-goods merchants.

Within the limits of the Presidency trade is facilitated by the railways running north and south, and fed by cart traffic along metalled roads. In the hilly regions of the Ghāts, trains of pack-bullocks are still to be met carrying salt from the coast up the passes that are too steep for carts, and returning with grain and molasses for residents of the lowlands.

The principal objects of internal trade are grain, metals, and cotton goods. Conspicuous among the traders in every town of importance will be found the Mārwāri Vānī from Rājputāna, the Lohāna in Sind, the Vānī, Bohra, and Memon in Gujarāt; these and the Bhātia, Khoja, and Pārsī in Bombay, and the Lingāyat Banjig of the south, are representative of the local castes in control of internal trade. Where pack-bullock trains are still in vogue, Lamānis and Vanjāris are in charge of the means of transport. The important trading centres of the Presidency, after Bombay and Karāchi, are Ahmadābād, Surat, Bhusāwal, Poona, Sholāpur, and Hubli; and in Sind, Hyderābād and Sukkur. In the distribution of miscellaneous articles advantage is taken of the numerous fairs held at places of pilgrimages to establish temporary bazars, where a brisk business is done with the public.

Rice, coco-nuts, salt, cotton, timber, and piece-goods are the staples of the coasting trade. The chief maritime Hindu castes are Bhandāris, Khārvās, Bhois, and Kolis; but many of the best sailors are Musalmāns from Cutch, Kāthiāwār, and the Maldive Islands.

The value of the internal trade of the Presidency recorded for large areas or registration blocks in 1903–4 was about 92 crores, of which one-quarter is sea-borne and the rest carried by rail. In 1903–4 about 128,000 vessels of 4,345,000 tons burden, engaged in the local coasting trade, entered the ports of the Presidency, and about 114,400 vessels of 4,113,000 tons burden cleared thence. Of the total, about 6,000 were steamers.

The total value of the trade of the Bombay Presidency with other parts of India by sea and rail is 74·7 crores, consisting of 43·2 crores imports and 31·5 crores exports. The chief articles of trade are piece-goods, grain, and coco-nuts. About 13 per cent. of this trade is sea-borne, and the rest travels inland by road and rail. There is nothing to differentiate it from the internal trade of the Presidency, which has already been described above. A very considerable share of the trade of India with foreign countries is carried on from the ports of the Bombay Presidency. In 1903–4 this share had attained a total value of 146·6 crores: namely, imports 68 crores and exports 78·6 crores. Of this, a small portion (imports 47 lakhs and exports 41 lakhs) represents trade by land across the Sind frontier with Kandahār and Herāt. The remainder is entirely maritime. Of the total foreign trade of the Presidency (exclusive of Sind), 28 per cent. in 1903–4 was with the United Kingdom, 16 per cent. with China, 6 per cent. with Japan, 7 per cent. with France, 7 per cent. with Belgium, and 6 per cent. with Germany. Other countries claiming at least 3 per cent. of the trade are Austria, Italy, and Mauritius. Table IV on pp. 386–7 gives the value of the chief imports and exports for the years 1891, 1901, and 1903–4. The figures shown above differ from those given in the table, as they include Government stores and treasure. It will be seen that the leading articles of import are cotton piece-goods, metals and machinery, sugar, oils, and silk and woollen manufactures. The chief exports are raw cotton, grain and pulse, seeds, hides, and opium. The bulk of the imports is supplied by the United Kingdom, though Belgium has recently proved a formidable competitor in iron and steel. The exported cotton is mostly directed to the continent of Europe and Japan, while opium is sent to China, with cotton twist and yarn manufactured in the Bombay mills. During 1903–4, 1,516 vessels of 2,158,000 tons burden engaged in foreign trade entered the ports of the Presidency, and 1,348 vessels of 2,150,000 tons burden cleared thence.

Communications.

At the close of the year 1904 there were 4,137 miles of railways in the Presidency. In that year there was one mile of railway to every 46 square miles of country, compared with one to every 61 in 1901. The chief railways are the Great Indian Peninsula, the Bombay, Baroda and Central India, and the Southern Mahratta; the first two with a 5½-feet-gauge, and the last with a metre-gauge line. The Great Indian Peninsula starts from Bombay and bifurcates at Kalyān towards Calcutta and Madras, climbing the Ghāts by the Thal and Bhor Ghāt passes. At Bhusāwal the Calcutta line again divides, to join the East Indian Railway at Jubbulpore and the Bengal-Nāgpur at Nāgpur. The Calcutta and Madras lines are connected by the Dhond-Manmād section, which carries traffic between Madras and Northern India without compelling passengers and goods to

descend and reascend the Ghāts. The 2½-feet-gauge light railway which connects Pandharpur and Bārsi town with Bārsi Road junction is also under this company's management. Since 1900 the Great Indian Peninsula Railway has been a state line, worked by a company. The Bombay, Baroda, and Central India Railway is a guaranteed line which was purchased by the state in 1906. It runs due north along the sea-coast past the cities of Surat, Broach, and Baroda, to Ahmadābād, where it connects with the Rājputāna-Mālwā metre-gauge state line to the north. This line and its 17-mile branch from Pālanpur to Deesa are worked by a company, as also are the Dabhoi 2½-feet-gauge line connecting Padra and Chandod, the Mehsāna metre-gauge railway 93 miles long, and the Vijāpur-Kālol-Kadi metre-gauge line, completed in 1903. These three last lines belong to the Baroda State. A branch line connecting Ahmadābād with Idar is also managed by the company. A westerly branch of the company's system from Ahmadābād to Viramgām brings the Presidency into touch with the railway system of the Kāthiāwār peninsula, which comprises the Bhavnagar-Gondal-Junāgarh-Porbandar (334 miles), the Jāmnagar (54), the Jetalsar-Rājkot (46), and the Dhrāngadhra (21) railways, which are all metre gauge; and a 2½-feet-gauge line (90 miles), connecting Morvi with Rājkot and Wadhwān, the greater part of which was converted to metre gauge in 1905. Another branch of the Bombay, Baroda, and Central India, with a 5½ feet gauge, starting from Anand, connects with the Rājputāna-Mālwā Railway through Godhra at Ratlām. From the junction the latter railway has a branch running south through Indore and Mhow to Khandwā, and a broad-gauge line is being made through Central India to Muttra. A chord-line from Baroda to Godhra has recently been opened. Other lines under the same management are the Rājpīpla 2½-feet gauge (37 miles), through Broach and Rājpīpla, and two 5½-feet-gauge lines, the Anand-Petlād-Tārāpur (22 miles) linking Kaira, Baroda, and Cambay, and the Tārāpur-Cambay (11 miles). In Gujarāt the Ahmadābād-Parāntīj and Ahmadābād-Dholka metre-gauge lines are owned by private companies, with rupee capital raised in India, both being managed by the Bombay, Baroda, and Central India Railway. An important line recently constructed, known as the Tāpti Valley Railway, connects the Bombay, Baroda, and Central India Railway at Surat with the Amalner-Jalgaon branch of the Great Indian Peninsula Railway at Amalner. This is a standard-gauge line owned by a private company, with rupee capital. The south of the Presidency is served by the Southern Mahratta Railway, which has two branches. One starts from Poona and runs south to Londa, where it doubles back towards Dhārwār, Hubli, and thence south-east to Harihar, where it joins the Mysore State Railway, with a short extension from Londa to Castle Rock to connect with the West of India Portuguese Railway;

the other branch connects Hotgi on the Great Indian Peninsula Railway (Madras line) with Gadag and Hubli through Bijāpur. This is a state railway on the metre gauge, worked by a company. A metre-gauge branch line from Mirāj junction to Kolhāpur, 29 miles in length, is under its management. It has access to the sea by the West of India Portuguese Railway, of which it has recently acquired the management, and which connects the Carnatic with the port of Marmagao near Goa. In Sind the North-Western Railway, starting from Karāchi, travels up towards the Punjab on the right bank of the Indus, a branch on the left bank going from Kotri as far as Rohri. At Ruk it connects with the line to Quetta, and at Hyderābād with the metre-gauge line to Mārwār Junction in Rājputāna. It is a standard-gauge line owned and worked by Government. A direct line from Bombay to Sind is in contemplation.

An experiment in light railways was inaugurated in 1897, when the Bārsi line, from Bārsi Road on the Great Indian Peninsula Railway to Bārsi town, was opened for traffic. This line, which is 21½ miles long, is constructed on a 2½ feet gauge, with a capital of 13½ lakhs of rupees, and is owned by a private company. In 1904 it carried 77,000 passengers and 60,000 tons of goods, and made in net earnings over Rs. 65,000. It has recently been extended to Pandharpur in Sholāpur District. The special feature of this line is the great carrying capacity of the trucks in respect to the width of the gauge.

There are three public tramway systems in the Presidency: in Bombay City, at Karāchi, and at Nāsik. The Bombay tramways, owned by the municipality and worked by a company, have a length of track of 17¾ miles, mostly double, and carried about 25 million passengers in 1904. The Karāchi tramway, owned and worked by the East India Tramway Company, carried over 2½ million passengers in 1904. The Nāsik tramway, also owned and worked by a private company, with a capital of one lakh, runs between Nāsik Road station on the Great Indian Peninsula Railway and Nāsik town. It conveys on an average 150,000 passengers a year over a length of 5 miles. Owing to successive years of famine and plague it has so far run at a loss. The Bombay tramway is now being converted from horse to electric traction. The other two are drawn by horses. None of the lines is guaranteed in any form.

Communications are maintained along the coast by the British India line of steamers, sailing at regular intervals for Karāchi and the Persian Gulf and for Mangalore. The coast ports between Mangalore and Bombay are served by vessels of the Bombay Steam Navigation Company, which leave daily for ports north and south of Bombay. A ferry service exists in Bombay harbour.

There were in 1904 more than 6,550 miles of metalled roads in the

Presidency, maintained at an annual cost of 13 lakhs. The chief roads are the Bombay-Agra trunk road, starting from Bombay and running north-east through Thāna, Nāsik, and Khāndesh; and the road from Poona to Bangalore. About 3,700 miles of metalled roads are in charge of the Public Works department and 308 miles under local boards. There are also 19,849 miles of unmetalled and unbridged roads, serving for communications between less important centres of trade. Of these, 15,631 miles are maintained by local authorities and 4,218 miles by the Public Works department. Native States maintain 2,061 miles of metalled roads and 3,550 miles of unmetalled roads. The cost of the former is about 3 lakhs. On the Ghāts the hilly roads are served by pack-bullocks.

The Presidency proper contained in 1903-4 1,962 post offices. The inland mails are conveyed over 14,000 miles of lines, and 10,000 persons are employed in postal work. Progress in this department of the administration has been steadily maintained since the opening of the first office in 1853-4. During the last forty years the number of post offices has quadrupled, and the length of postal lines has increased by 30 per cent. In every branch of post office business the volume of work done expands continuously.

The Presidency of Bombay and the Native States attached thereto (with the exception of Bhor and Junāgarh, which have their own postal arrangements, and Khairpur) form, together with the State of Baroda and certain post offices in the Hyderābād State, a postal circle under a Postmaster-General. The post offices at Aden, Bushire, Basra, Baghdād, Muhammarah, Linga, Muscat, Bahrein, and Bandar Abbās are also controlled by the Postmaster-General of Bombay. The table on the next page shows the progress of postal business. Unless otherwise expressly stated, the figures do not include those of Baroda or of any post offices in the Hyderābād State. Both the Post and Telegraph departments are directly controlled by the Government of India. A full account of them is given in Vol. III, chap. viii.

Famine.

The usual cause of famine or scarcity is partial or total failure of the crops due to insufficient or untimely rainfall. The effects of this failure are widely felt, owing to the large proportion of the population dependent on agriculture for a livelihood. In the case of the labouring classes usually employed in the fields the pressure of bad seasons is enhanced by the fact that the same cause greatly increases the cost of food while it decreases the prospects of employment. Sind, being wholly cultivated with irrigation, is practically immune from famine. The western coast similarly suffers little from this calamity, being certain of an ample rainfall. In the Deccan plains and the East Carnatic the ordinary rainfall is so light that a very small reduction or postponement of the monsoon showers materially

diminishes the crop output, and these tracts are therefore liable to frequent crop failures. In Gujarāt rain failure occurs less frequently. In the famine tracts the most valuable crops are sown during the late rains, i.e. during September or October. Hence the early cessation of the monsoon produces the most serious results, far exceeding the loss caused by deficiency at the beginning. The chief late crops are cotton, wheat, *jowār*, gram, and oilseeds. If the failure of the monsoon is followed by widespread rise of prices and the influx of beggars into the towns, measures of relief will be required.

	1880-1.	1890-1.	1900-1.	1903-4.
Number of post offices	688	1,276	1,494	1,962
Number of letter boxes	1,839	2,309	4,184	7,376
Number of miles of postal communication . . .	14,295 *	14,837 *	16,204 *	19,475 *
Total number of postal articles delivered :—				
Letters . .	23,195,463 *	31,749,159 *	41,070,660	49,148,162
Postcards . .	2,734,137 *	22,346,786 *	43,432,418	55,841,141
Packets . .	418,525 *	1,413,280 *	4,076,713 †	5,411,255 †
Newspapers . .	1,713,127 *	3,837,975 *	4,525,791 ‡	5,224,506 ‡
Parcels . .	134,294 *	255,787 *	354,545	686,317
Value of stamps sold to the public . .	Rs. 11,73,676 *	Rs. 18,57,710 *	Rs. 23,30,234 *	Rs. 30,57,708
Value of money orders issued . . .	47,08,720 *	1,65,54,290 *	3,11,11,400 *	3,08,44,507 *
Total amount of savings bank deposits .	...	1,97,68,396 *	2,67,45,794 *	3,38,19,038

* These figures include those of Baroda and of the offices of the Hyderābād State under the Postmaster-General of Bombay.
† Including unregistered newspapers. ‡ Registered as newspapers in the post office.

History records many famines in the area now constituting the Bombay Presidency. They have sometimes been caused by war, floods, or the depredations of rats and locusts, as well as by drought. Up to the nineteenth century the most noteworthy of these calamities occurred in the years 1259–62, 1396–1407 (the great Durgā-devī famine), 1472–3, 1629, 1681, 1684, 1698, 1719, 1732, 1747, and 1791–2.

Of the notable famines of the nineteenth century, those which affected considerable areas are described below, detailed information about local calamities being given in articles upon the Districts concerned. One of the worst occurred in 1802–3 from the depredations of Holkar's army, which on its march to Poona laid waste the whole country-side. The Pindāris followed in Holkar's wake and reduced the Deccan and Carnatic to such depths of misery and want that cows, buffaloes, and even human beings are said to have been devoured by the starving peasantry. The price of grain stood at 1½ lb. per rupee; and notwithstanding the activity of private charity, and importations of grain and liberal remissions of revenue by the Peshwa's government, con-

tinuous hordes of starving emigrants poured into the Konkan and Gujarāt, leaving a trail of dead and dying behind them. The failure of the late rains of 1803 accentuated the calamity wrought by human agency; the river at Poona was black with putrescent corpses; and hunger, hand in hand with cholera, left numerous villages permanently desolate. Among those who endeavoured with some success to mitigate the prevailing misery were Lady Mackintosh in Bombay, who collected a subscription of £4,000 for relief, and General Wellesley, who improvised relief works and free doles for the people of Ahmadnagar.

In 1812–3 the northern Districts of the Presidency were attacked by swarms of locusts from Mārwār, which covered Kāthiāwār and Gujarāt as far south as Broach and entirely devoured the crops. No sooner had the scarcity thus caused assumed definite proportions than Gujarāt had to face a total failure of rain which, coupled with enormous immigration of diseased and starving Mārwāris, placed her in most pitiable straits. Private help was liberally but unmethodically bestowed, and every roadside was crowded with men, women, and children, famished and moribund. 'During this time of misery,' wrote Captain Rivett Carnac, 'I have seen a group of Mārwāris deny a little water to a dying woman with a dead infant at her breast. Dogs, by feeding on human flesh, grew strangely fierce. I have seen a pack of them carry off a living child from its dead mother's arms. Even among the higher classes so keen was the distress that for a few shillings Brāhmans sold their relations, children, and wives.' Pestilence walked hard upon the heels of famine, and in Ahmadābād alone slew 100,000 people.

The famine of 1819–20, due in Broach to two years' excessive rainfall and in the Deccan to a failure of the monsoon, was actually less severe, but remarkable for widespread panic which for seven or eight months emptied considerable tracts of the Deccan of their inhabitants. In 1824, a year remembered as that of *kharpad* or 'distress,' the failure of rain throughout the Presidency raised grain prices to famine level and caused widespread scarcity, which was only partially mitigated by large remissions of assessment, and by the opening of relief works in various Districts. Emigration, notably to the Nizām's territory, continued until October, when a timely fall of rain brought relief. The scarcity of 1832–3, though affecting both the Deccan and Carnatic, was chiefly felt in the latter region. Grain robberies were frequent; lack of fodder caused high mortality among cattle, and drove shepherds and graziers from their homes; the carrying trade in some places was temporarily brought to a standstill. The opening of relief works and orders to grain-dealers to keep down prices helped the people to tide over the scarcity, which lasted for eight or nine months.

A considerable portion of Gujarāt and Khāndesh was similarly

affected in 1834, distress in the former area being augmented by the ravages of locusts. Grain was sold at Rs. 4 a maund, and the cattle suffered severely from want of fodder. In Kaira alone remissions of Government revenue amounted to nearly 2 lakhs. Scarcely had the people time to recover from the effects of this famine, before they were plunged in more acute distress by a total failure of rain in 1838. Not only Gujarāt and Khāndesh but Thāna District also witnessed the wholesale desertion of villages; and such live-stock as survived were driven to seek a bare sustenance among the hills. Portions of Thāna were relieved by the timely arrival of shiploads of rice from Malabar; but in the northern districts relief works had to be opened, and revenue, amounting in Khāndesh to 6¾ lakhs and in Surat to 5 lakhs, was remitted. Fourteen years later, in 1853–4, the Northern Konkan, the Pānch Mahāls, and parts of the Deccan were attacked by serious scarcity. Sholāpur was the greatest sufferer among Deccan Districts and poured hundreds of starving and destitute villagers into Bijāpur, where they were employed by Government upon road construction. In Thāna and Kolāba a failure of the late rains of 1853 was followed by an equally destructive excess of rain in 1854, while at the moment when the people might have commenced to profit by the liberal actions of Government, a terrific hurricane, sweeping across the coast villages, destroyed the last vestiges of crops and cancelled all hopes of speedy recuperation. In 1862 the whole Deccan suffered from a failure of the early rains; and distress was so widespread and serious that relief works, chiefly road construction, were opened in each District. In Nāsik, particularly, the price of grain rose more rapidly to famine level, owing to the reduction of the area under cereals caused by increased cotton cultivation; but in the end every District was equally afflicted by a calamity, the severity of which is to some extent proved by the fact that grain compensation allowances were required for all Government servants in receipt of a monthly salary less than Rs. 200.

The famine of 1876–7 was felt throughout the Deccan and Southern Marāthā Country, though less severely than in the adjoining Districts of Madras and Mysore. The same meteorological causes operated over all Southern India. The total rainfall of the year was everywhere deficient, but the disastrous effect upon agriculture was determined mainly by local variations. The harvest of 1875 had also been below the average, so that the pressure of high prices fell upon a population already impoverished. In 1876 the summer rains of the south-west monsoon, which commence in June, were scanty, and the autumn rains upon which the table-land above the Ghāts is mainly dependent failed altogether. The result was a general failure in the winter crops in the Presidency over an area estimated at 39,000 square miles, with a population of nearly six millions. Serious distress began in November,

1876, and lasted for about twelve months. In April, 1877, the number of people employed by Government on relief works was 287,000. In July of the same year the persons in receipt of gratuitous relief numbered 160,000. The District most affected was Bijāpur, bordering on the Nizām's Dominions, where those relieved formed 14 per cent. of the total population, and the severity of the local distress was intensified by the lack of roads and railways. But these figures convey but an inadequate idea of the general impoverishment produced by this disastrous year. The statistics of the Bombay mint show in a decisive manner how even the well-to-do portion of the population suffered. In the two years 1877 and 1878 the total value of silver ornaments and disused coin brought into the mint as bullion exceeded 250 lakhs, compared with only Rs. 40,000 in 1876. The Government endeavoured to provide work for the starving population; but notwithstanding the wages offered and the supplies of food brought into the Districts, the calamity proved beyond the power of administrative control. The deaths in the two famine years 1877 and 1878 in the Bombay Presidency, excluding Sind, are estimated to have been 800,000 in excess of the usual number.

After 1877 a period of nearly twenty years elapsed without the occurrence of any famine of serious dimensions. In 1896 the rain failed in the Deccan Districts and the East Carnatic, and severe distress followed. The total daily average number of persons in receipt of relief in these tracts, either employed on Government works or being fed in poorhouses or by village doles, during a period of fourteen months was 280,000, the maximum being 459,000 in September, 1897. The number of relief works open amounted to 180, and the expenditure incurred on relief was 146 lakhs, of which 128 lakhs was spent by Government and the rest by local bodies and the Indian Famine Fund. The rainfall of the succeeding year was more ample but still inadequate; and relief measures had again to be resorted to, the resources of the people being severely taxed.

In 1899–1900 the rains failed in Gujarāt, the Deccan, and parts of the Carnatic, causing a famine of unprecedented severity. In British Districts alone the daily average number of persons in receipt of relief from September, 1899, to November, 1900, was 849,000, the maximum being 1,547,000 in July, 1900. The daily average from December, 1900, to October, 1901, was 291,000, and from November, 1901, to October, 1902, 192,000. The number of works open was 367 in 1899–1900, and 268 in the two following years; the total expenditure on relief measures exceeded 6 crores, while 2¼ crores of revenue was remitted. In Native States a daily average of 298,000 persons were relieved in 1899–1900, at a cost of 83 lakhs. This famine was marked by terrible mortality, the highest death-rate occurring in the

Gujarât Districts and States, where the people, long unaccustomed to suffer from scarcity, frequently failed to take advantage of relief measures until the progress of exhaustion had rendered it impossible to save their lives. The wild tribes in the forest tracts of Gujarât, ignorantly distrustful of these measures, and opposed to all forms of regular work, died in numbers in the remoter jungles. Later on, when relief measures were making progress in public favour, virulent outbreaks of cholera slew thousands, and scattered the survivors beyond the reach of relief.

It is difficult to separate the deaths caused by disease from the results of privation, and estimates of mortality are again complicated by the prevalence of bubonic plague in certain of the famine areas. It is, however, estimated by the Provincial Superintendent of the Census of 1901 that between 1896 and 1901 the Presidency lost 3,000,000 of its population, owing to the ravages due to famine and plague. Of this loss one-third occurred in British territory and two-thirds in Native States, and the greater part of it must be attributed to famine.

In connexion with recent famines it may be noted that the extension of the railway system of the Presidency has very largely reduced the difficulty of saving life, by providing for the transit of food-grains to the affected areas. In 1877, for instance, attempts made to import food into the Carnatic failed, owing to the difficulty of transporting grain from the coast by bullock-cart. In 1896–7 and in 1899–1900 the food-supply was everywhere adequate, though naturally costly. Incidentally this advantage has been accompanied by a lesser but inevitable evil: namely, the raising of prices to a level formerly unknown in the tracts whence food-grains are exported by the newly constructed means of communication. Another and more entirely satisfactory characteristic of recent famines has been the prompt recovery of the affected areas on the return of the normal rainfall. This happy result is to be attributed largely to the measures adopted by Government for facilitating the recommencement of agricultural operations. The loss of valuable stock has been minimized by transporting cattle to the grazing lands in the forests, or by distributing large quantities of fodder gathered in these forests throughout the affected tracts. Advances of money on a liberal scale have been made to enable the small landowner to purchase seed and cattle, without which his lands must have remained unsown. Large suspensions and remissions of the land revenue demand were granted throughout the famine area. Efforts were also made, by employing the relief workers on the construction of irrigation works, to provide against the consequences of rain failure in the future. Measures of this description are unfortunately limited by the unsuitability of much of the country most liable to famine to large and comprehensive schemes of irrigation. But the works constructed have been supplemented to

some extent by the construction of numerous wells, for which loans were advanced to the cultivators. Many of these were completed in time to furnish a small grain or fodder crop to the owner during the period of the famine, and the others have enabled a useful addition to be made to his crop out-turn ever since. Much special relief was afforded between 1899 and 1902 by the Indian Charitable Relief Fund, from which 57½ lakhs was given to deserving sufferers in the affected Districts of the Presidency.

Administration.

The government of the Presidency of Bombay is administered by a Governor-in-Council. This body consists of the Governor as President, and two members of the Indian Civil Service, all of whom are appointed by the Crown. The term of office for both Governor and Councillors is five years. With a view to diminish the pressure of business, each member of Council takes immediate charge of certain departments. Questions which present no special difficulty are finally disposed of by the member in charge of the department in which they occur. On more important questions, and on those involving the expenditure of any large sum of money, the opinion of a second member is sought; and should there be a difference of opinion, or should any case of peculiar difficulty or general public interest arise, the matter is settled according to the balance of opinion either as recorded by the different members, or after discussion at a meeting of the Council.

In matters before the Council in their judicial capacity, and in the making, repealing, and suspension of the ordinary rules of civil administration, the opinion of the majority is decisive; but in any matter essentially affecting the safety or tranquillity of British India, the Governor can act on his own discretion even against the opinion of his Councillors.

All papers connected with public business reach Government through the Secretariat, where they are submitted to the members in charge of the departments to which they belong. The Secretariat is divided into five main departments: namely, (*a*) the Revenue and Financial; (*b*) the Political, Judicial, Legislative, and Special; (*c*) the General, Educational, Marine, and Ecclesiastical; (*d*) Ordinary Public Works, including Irrigation; and (*e*) Railways; and each department has at its head a secretary, who is usually assisted by an under secretary and an assistant secretary. In departments (*a*), (*b*), and (*c*) the secretaries and under secretaries belong to the Indian Civil Service; in (*d*) and (*e*) they are Royal or Civil Engineers; group (*d*) being in charge of two joint secretaries, with an under secretary for irrigation matters. The senior of the three civilian secretaries to Government is entitled the Chief Secretary. The Separate department, which deals with the dispatch and receipt of correspondence from the India Office, and is in

charge of the Secretariat building, is under the Chief Secretary, assisted by the under secretary, Revenue and Financial departments.

Under the Governor-in-Council, the Presidency is administered by four Commissioners—the Commissioner in Sind, who has special powers, and the Commissioners in charge of the Northern, Central, and Southern Divisions. Sind contains six Districts: namely, Karāchi, Hyderābād, Lārkāna, Sukkur, Thar and Pārkar, and Upper Sind Frontier, the first four of which are in charge of Collectors and the last two of Deputy-Commissioners. The Revenue Divisions of the rest of the Presidency contain the following Districts, each in charge of a Collector, who is generally an Indian Civilian, but may belong to the Statutory or the Provincial Service:—

Northern Division.—Ahmadābād, Broach, Kaira, Pānch Mahāls, Surat, Thāna.

Central Division.—Poona, Sātāra, Sholāpur, Nāsik, Khāndesh (now East and West Khāndesh), Ahmadnagar.

Southern Division.—Belgaum, Dhārwār, Bijāpur, Kanara, Ratnāgiri, Kolāba.

The head-quarters of the Commissioner, Northern Division, are at Ahmadābād; the Commissioner, Central Division, resides at Poona; and the Commissioner, Southern Division, at Belgaum.

Each District has one or more Indian Civilians as Assistant Collectors in charge of subdivisions, and one or more Deputy-Collectors of the Provincial Service similarly employed. A Deputy-Collector is in charge of each District treasury.

A Collectorate contains an average of from eight to twelve *tālukas*, each consisting of 100 to 200 Government villages: that is to say, villages of which the whole revenues belong to the state. Each village has its regular complement of officers, some or all of whom are usually hereditary. The officers on whose services Government is mainly dependent are the *pātel*, who is the head of the village for both revenue and police purposes; the *kulkarni* or *talāti*, who is the clerk and accountant; the messenger; and the watchman. The *pātel* and *kulkarni* sometimes hold a certain quantity of rent-free land, but are now almost universally remunerated by a cash payment equivalent to a percentage on the collections. The messenger and watchman, and sometimes other village servants, hold land on special terms as regards assessment, and receive grain and other payments in kind from the villagers. The remaining village servants include the carpenter, blacksmith, potter, barber, and others whose services are necessary to the community. A village is, for Government or social purposes, complete in itself, and, so to speak, independent of the outer world. But owing to the greater centralization and complexity of the system of government, its autonomy is now less than it was under native rule.

Over each *tāluka* or group of villages there is an officer termed *māmlatdār*, whose monthly salary varies from Rs. 150 to Rs. 250. The *māmlatdār* is responsible for the treasury business of his *tāluka*; he has to see that the instalments are punctually paid by the several villages; that the village accounts are duly kept; that the occupants get their payments duly receipted; that the boundary marks are kept in repair; and, in general, to secure that the village officers do their work properly. He has also to look after the administration of the local funds, and is a subordinate magistrate. The *tāluka* is subdivided into groups of villages, each of which is under the immediate supervision of a subordinate of the *māmlatdār* termed 'circle-inspector.' The Assistant or Deputy-Collector placed in charge of a District subdivision, containing three or four *tālukas*, has to travel about them during seven months in the year, to satisfy himself by personal inspection that the revenue work is being properly done: during the rains he resides at the District head-quarters. The Collector and Magistrate is placed over the whole District, and has to travel at least for four months in the year. The Commissioners exercise a general superintendence and control over the revenue administration of their Divisions.

The control of the Bombay Government over the Native States of the Presidency is exercised through Political Agents. The position and duties of the Agent vary very considerably in the different States, being governed by the terms of the original treaties, or by recent *sanads* or patents. In some instances, as in Cutch, the functions of the Agent are confined to the giving of advice and to the exercise of a general surveillance; in other cases he is invested with an actual share in the administration; while States whose rulers are minors—and the number of these is always large—are directly managed by Government officers. The characteristic feature of the Bombay Native States is the excessive number of petty principalities, such as those of the Rājput and Bhīl chieftains. The peninsula of Kāthiāwār alone contains no less than 193 separate States. The recognition of these innumerable jurisdictions is due to the circumstance that the early Bombay administrators were induced to treat the *de facto* exercise of civil and criminal jurisdiction by a landholder as carrying with it a quasi-sovereign status. The rule of succession by primogeniture applies only to the larger principalities, and consequently the minor States are continually suffering disintegration.

The States may be conveniently divided into three classes. First, there are important States in each of which the British Government is represented by an Agent who corresponds with the Darbār, or State administration, and is a member of the Bombay Political service, specially appointed to the post. Second, groups of smaller States in

charge of a Political Agent, who resides in a central station, and is also a member of the Bombay Political service. Third, isolated States in close proximity to British Districts, the Collector of which is *ex-officio* Agent for the State. According to this classification the States attached to the Bombay Presidency are as follows :—

Class I.—Kolhāpur, Sāvantvādi, and Cutch.

Class II.—Mahī Kāntha States, Pālanpur States, Kāthiāwār States, and Southern Marāthā Jāgīrs.

Class III.—Khairpur, Rewā Kāntha, Cambay, Dharampur, Bānsda, Sachīn, Jawhār, Janjīra, Surgāna, Akalkot, Bhor, Aundh, Phaltan, Savanūr, Jath, and the Bhīl States in Surat.

The Native States are either subordinate to other States or in direct relation with the British Government. Thus Kolhāpur has direct dealings with Government, while its feudatory, Kāgal, is in relation with the Kolhāpur Darbār. The status of the feudatories is usually guaranteed by Government. All classes are administered, subject to the orders of the chief, by the Darbār of ministers, who issue orders to the executive, usually through the chief minister or Dīwān. The powers of the chiefs are regulated by treaty or custom, and vary from authority to try all criminal offences not committed by British subjects, and complete civil authority, as in the case of the Mahārājā of Kolhāpur, to the mere right to collect revenue in a share of a village, without criminal or civil jurisdiction, as in the case of the petty chiefs of the Kāthiāwār peninsula. When the chief lacks the power to dispose of criminal or civil cases, they are dealt with by the Political Agent. Appeals from the judicial decisions of chiefs with large powers lie to the Governor-in-Council, and are not cognizable by the ordinary courts of justice established for British territory. With the object of providing a tribunal by which speedy justice might be dispensed to the wild tribes inhabiting the border States of Gujarāt and Rājputāna, and to repress border raids, a system of Border Panchāyats was instituted in 1838, which subsequently (1876) developed into regular courts under two British officers, one of whom represents the Rājputāna State and the other the Bombay State concerned in the inquiry. The system still exists and the courts assemble as occasion requires.

In Aden the local administration centres in the Resident, who is the General in command of the troops, and has three Political officers as Assistants in the former capacity.

Legislation and justice.

The Legislative Council of the Presidency is composed of the members of the Executive Council, with the Advocate-General and twenty Additional Members nominated by the Governor, eight of them on the recommendation of—(1) the corporation of Bombay, (2) the municipal corporations of the Northern Division, (3) the District boards of the

Southern Division, (4) the District boards of the Central Division, (5) the Sardārs of the Deccan, (6) the *jāgīrdārs* and *zamīndārs* of Sind, (7) the Chamber of Commerce, Bombay, and (8) the Senate of the Bombay University.

The non-official Additional Members of this Council have the privilege of recommending one member for a seat as an Additional Member in the Legislative Council of the Governor-General. The members of the Legislative Council avail themselves freely of the right to interpellate Government regarding matters of general administration, and to discuss the annual financial statement.

The chief legislative measures affecting Bombay which have been passed since 1880 by the Governor-General's Council are: The Indian Merchant Shipping Act (Act VII of 1880), the Bombay Revenue Jurisdiction Act (Act XV of 1880), the Indian Factories Act (Act XV of 1881), the Indian Trusts Act (Act II of 1882), extended to Bombay in 1891, the Land Improvement Loans Act (Act XIX of 1883), extended to Bombay in 1886, the Indian Steamships Act (Act VII of 1884), the Provincial Small Cause Courts Act (Act IX of 1887), the Land Acquisition Act (Act I of 1894), the Cotton Duties Act (Act II of 1896), the Sind Encumbered Estates Act (Act XX of 1896), and the Epidemic Diseases Act (Act III of 1897). Of the enactments passed by the Bombay Legislative Council during the same period the chief are: The Bombay Local Boards Act (Act I of 1882), the City of Bombay Municipal Act (Act IV of 1888), the Bombay Village Sanitation Act (Act I of 1889), the Bombay Salt Act (Act II of 1890), the Bombay District Police Act (Act IV of 1890), the City of Bombay Improvement Act (Act IV of 1898), the Bombay District Municipal Act (Act III of 1901), the City of Bombay Police Act (Act IV of 1902), the Bombay Land Record-of-Rights Act (Act IV of 1903), the Bombay Motor-Vehicles Act (Act II of 1904), and the Bombay Court of Wards Act (Act II of 1905).

The administration of justice throughout the Presidency proper is, under a statute of 1861 (Indian High Courts Act) and the letters patent of 1865, entrusted to the High Court, which has both ordinary and extraordinary civil and criminal jurisdiction, original in the City and Island of Bombay and appellate in the other Regulation Districts. It also exercises the functions of an insolvency court, and possesses the civil and criminal jurisdiction of an admiralty and vice-admiralty court in prize causes and other maritime questions arising in India. The Court consists of a Chief Justice (a barrister) and six puisne judges who are either Indian Civilians, barristers, or native lawyers.

In Sind the Court of the Judicial Commissioner (consisting of three judges, one of whom must be a barrister) is the highest court of civil and criminal appeal, and the High Court at Bombay has no jurisdiction

over that province, except as regards a few special matters. The Judicial Commissioner's Court is a colonial court of admiralty, from which an appeal lies to a full bench of the same court and ultimately to His Majesty in Council.

The lower civil courts are constituted under Act XIV of 1869, which defines their powers. In most cases the court of first instance is that of a Subordinate Judge of the first or second class according to the valuation of the suit. The court of first appeal is that of a District or Assistant Judge, or of a first-class Subordinate Judge with special powers. The jurisdiction of the District, Additional, and Assistant Judges in each District is conterminous. The Subordinate Judges are usually recruited from the ranks of the local pleaders, while the District and Assistant Judges are Indian or Statutory Civilians or members of the Provincial Service. A Subordinate Judge of the second class has original jurisdiction in suits of less than Rs. 5,000 in value, but no appellate powers; while a Subordinate Judge of the first class has jurisdiction in all original civil suits, except those in which Government is a party. The latter may be invested with appellate jurisdiction and with the summary powers of a Small Cause Court Judge for the trial of suits not exceeding Rs. 1,000 in value. An Assistant Judge may try such original suits of less than Rs. 10,000 in value as the District Judge refers to him, and may be invested with appellate jurisdiction, in which case his powers are the same as those of a District Judge. The District Judge exercises a general control over all courts within his charge, and refers such suits as he deems proper to the Assistant Judge. In certain parts of the Presidency the services of an Additional Judge are employed. This officer, with the title of Assistant Judge, has all the powers of a District Judge in civil matters, and nearly all the administrative powers. In cases exceeding Rs. 5,000 in value an appeal from the decision of a Subordinate or Assistant Judge, and from the decision of a District Judge in all original suits, lies to the High Court. Any Subordinate Judge can be invested with certain powers as regards small debts; and special Small Cause Courts exist in Bombay, Ahmadābād, Nadiād, Broach, Surat, Poona, and Karāchi. The Dekkhan Agriculturists' Relief Act is administered in the Presidency proper by a Special Judge and two first-class Subordinate Judges, with the aid of a number of Village Munsifs and conciliators.

In Sind the judicial system nearly resembles that of the regulation portion of the Presidency. In Aden and its dependencies the Resident has rather more extensive powers than a District and Sessions Judge, but his decisions are in certain cases subject to revision by the High Court at Bombay.

Māmlatdārs have, under Bombay Act III of 1876, jurisdiction in

suits regarding immediate possession of immovable property. Their decisions are subject to revision by the High Court.

District and Assistant Judges, under the title of Sessions Judges and Assistant Sessions Judges, exercise criminal jurisdiction throughout the Presidency. But original criminal work is chiefly disposed of by the executive District officers, who, in addition to their revenue duties, are invested with magisterial powers under the Code of Criminal Procedure. The total number of magistrates of all classes (inclusive of 242 honorary magistrates) in 1904 was 1,128, of whom 24 were District magistrates, 4 Presidency magistrates, 311 magistrates of the first class, 259 magistrates of the second class, and 288 magistrates of the third class. Under the general title of Courts of Sessions three grades of officers are included: the Sessions Judge, who is the District Judge; the Additional Sessions Judge, who is the Assistant Judge with full powers; and the Assistant Sessions Judge. Whereas the Sessions Judge can try any offence and pass any legal sentence, subject in the case of a capital sentence to confirmation by the High Court, the Additional Sessions Judge can try only such cases as he is empowered by the Government to try or which are made over to him by the Sessions Judge. The Assistant Sessions Judge can try only such cases as the Government may direct or as are made over to him by the general or special order of the Sessions Judge. A sentence passed by him may not exceed imprisonment or transportation for seven years. The jurisdiction of the three classes of Judges is conterminous in each District of the Presidency.

Particulars of civil suits and criminal cases instituted before these different courts are given in the tables on the next page.

Civil suits tend to increase steadily, except in years of famine or scarcity. Thar and Pārkar in Sind and Sātāra in the Deccan are remarkable for litigation, whereas the fewest suits in proportion to the population are instituted in Bombay City and in the Gujarāt Districts. Criminal offences are mainly petty assaults and thefts. In famine seasons gang robberies or 'dacoities' are doubled, and thefts show a similar increase—the natural outcome of widespread privation. Convictions are obtained only in less than half the cases brought into court—an eloquent indication of the difficulties under which the courts labour in endeavouring to arrive at a conclusion regarding the guilt of the accused. It is probable that the prisoner is more often released on account of the unsatisfactory demeanour of the witnesses than because the charge is untrue.

Documents regarding rights in immovable property, and those dealing with movable property of over a certain value, are required to be registered. Sub-registrars are maintained in *tāluka* head-quarters for this purpose, and are bound to require evidence of execution before

proceeding to register. Collectors are ex-officio Registrars for the Districts, and the department is controlled by the Inspector-General of Registration. The number of offices and of documents registered in th Presidency, excluding Native States, but including Aden, Deesa, an Bhuj cantonments, was as follows: offices (in 1881) 255, (1891) 24 (1901) 257, (1903) 261; average number of documents registered (i 1881–90) 111,441, (1891–1900) 186,476, (1900–1) 199,156, an (1903–4) 161,593.

STATISTICS OF CIVIL JUSTICE IN BOMBAY PRESIDENCY

Classes of suits.	Average for ten years ending 1890.	Average for ten years ending 1900.	1901.	1904.
Suits for money and movable property	151,424	160,369	147,815	120,227
Title and other suits	15,510	31,289	38,593	40,276
Total	166,934	191,658	186,408	160,503*

* Besides these, there were 4,608 suits under the Dekkhan Agriculturists' Relief Act.

STATISTICS OF CRIMINAL JUSTICE IN BOMBAY PRESIDENCY

	Average for ten years ending 1890.	Average for ten years ending 1900.	1901	1904.	Percentage of convictions, 1904.
Number of persons tried:					
(a) For offences against person and property	86,181	110,431	91,088	94,272	19
(b) For other offences against the Indian Penal Code	17,005	25,076	22,265	26,578	16
(c) For offences against special and local laws	44,318	127,670	145,971	135,996	64
Total	147,504	263,177	259,324	256,846	42

The financial system of the Marāthās was largely the result of the historical events leading to their political ascendancy. Thus the revenue raised in the *svarāj*, or area in which their sovereignty was unchallenged, was wholly theirs. Elsewhere the revenue was divided between them and the Mughals, or later, between them and the Nizām, though a *sardeshmukhi* or overlordship charge of 10 per cent. was levied and retained by the Marāthās. The revenue was raised almost entirely from the land assessment and special cesses known as *pattis*, such as a butter tax, a grain and grass tax, a house tax, and a tax on female buffaloes. Broadly speaking, the sum collected was divided into two portions: the *bābti* or chief's share, and the *mokāsa* or share given away by the chief, three parts of the revenue being

Finance.

treated as *bābti* and one part as *mokāsa*. Thus a Marāthā budget for outlying territory would roughly have been as follows:—

Sardeshmukhi		10 per cent.
Share due to Mughals or Nizām		45 „
Marāthā share—	*Bābti* $33\frac{3}{4}$, *Mokāsa* $11\frac{1}{4}$	45 „
	Total	100

But the division of the revenues was in practice greatly complicated by special assignments made to the great hereditary officers, such as the Pant Sachiv. The total demand was never realized, and the receipts varied greatly from year to year.

Under British rule, up to the year 1870 there was but one common purse for all India, of which the Government of India held the strings. Since then, the distribution of revenue and expenditure between the Supreme and Provincial Governments has been regulated by the Provincial settlement system, a description of which will be found in Vol. IV, chap. vi. In 1871–2 an allotment was made to the Government of Bombay for certain services transferred to its control, such as police, education, jails, registration, equal to the estimates for those services for 1870–1, less a lump deduction of 6·6 lakhs necessitated by financial exigencies. This settlement was accompanied by a general promise that, except in the event of war, famine, or other severe financial exigency, the assignments would not be reduced.

In 1877 the system was expanded by assigning to the Local Government a proportionate share in certain growing heads of revenue, from which it was to meet the expenditure on the ordinary Provincial services. These included land revenue, 66 lakhs; excise, 40; stamps, 45; law and justice, 3; and other items amounting to 4 lakhs. The result was to raise the income of the Local Government by about 153 lakhs per annum. This second settlement was fixed for five years. It was seriously disturbed by the famine of 1877, and could not in consequence be strictly adhered to. The Provincial revenue and expenditure during this period averaged respectively 347 and 336 lakhs.

In 1882 a third quinquennial settlement was arranged, the terms of which were far more favourable to the Local Government than in the two previous cases. The principle adopted was to extend the interest of the Provincial authorities in the development of the revenue by a system of sharing several of the old and some new heads, instead of allotting certain heads entirely to Provincial funds. Thus, it was arranged that the Bombay Government should receive half of the revenues under forest, excise, assessed taxes, stamps, and registration, and should receive in their entirety the proceeds of local rates, minor departments, law and justice, marine, police, education, medical, stationery and printing, miscellaneous receipts under customs, salt, and

certain items under interest, pension, miscellaneous, and public works. The Local Government was to look for no special aid in future from Imperial sources, except in the case of severe famine, and then only within certain definite limits; and, on the other hand, the Supreme Government was to make no demand on the Provincial authorities except in the case of abnormal disaster. This settlement opened with a credit balance of 29 lakhs, and, after contributing 20 lakhs to make good deficiencies in Imperial accounts, closed with a balance of nearly 55 lakhs. The revenue and expenditure during this period averaged respectively 380½ and 380⅔ lakhs.

In the fourth settlement (1887) the principle of dividing receipts as well as expenditure under certain heads was extended, and some changes were made in the proportion of the shares. The estimates of the receipts thus provincialized fell short of the expenditure by nearly 82 lakhs, which was met by an assignment from the Imperial share of the land revenue receipts. The closing Provincial balance under this settlement was about 40 lakhs. The revenue and expenditure during this period averaged respectively 390½ and 393⅓ lakhs.

The fifth settlement (1892) was marked by some slight changes in the classification of revenue and the cessation of all inter-Provincial adjustments. The special feature of this settlement was that it was a consolidated one, intended to secure to the Local Government a total sum for all heads taken collectively instead of a contract figure for each major head of receipts. The revenue and expenditure during this period averaged respectively 411 and 416 lakhs. In 1897, when the settlement came to a close, the balance had fallen to 18 lakhs. The decrease was caused by the demands made for special expenditure in connexion with famine and plague. Owing to the disturbance in Provincial finance due to continued famine and plague, the Government of India limited the 1897 settlement to a period of one year. In the cold season of 1898, when the extension of this settlement was discussed, it was found that the Presidency had not recovered from the effects of the famine of 1896–7; and it was decided to continue its contract with the Government of India on the lines of the fifth settlement (1892–7), the fixed assignment being curtailed by Rs. 94,000 on account of some special reductions in Provincial services. The year 1898-9 opened with no balance, and it was therefore directed that the Provincial share of special famine arrears of land revenue should remain unspent until the minimum balance of 20 lakhs had been restored. The occurrence of a still more severe famine in 1899–1900 entirely upset these arrangements, and further grants-in-aid by the Supreme Government became necessary. On March 31, 1902, the sixth settlement expired; but, for the reasons already given, it had never amounted to more than an arrangement of accounts. The state of affairs at the close rendered

it difficult to fix standards for either revenue or expenditure; and, mainly for this reason, it was decided to continue the former Provincial arrangements till March 31, 1905. Imperial revenues bore all direct famine expenditure during the period 1897–1903, excepting a sum of 2·52 lakhs in 1898–9, which was debited to Provincial revenues. The details of this expenditure were, in thousands of rupees, as follows:—

1897–8	94,26
1899–1900	1,15,43
1900–1	2,84,02
1901–2	77,63
1902–3	39,99
Total	6,11,33

The chief features of the new settlement, which came into force on April 1, 1905, are that the period of its duration is not fixed, a fixed annual assignment of Rs. 42,77,000 is made to Provincial revenues under the Land Revenue head, and the proportions between Provincial and Imperial accounts of the shared heads of revenue and expenditure have been materially changed in favour of the Bombay Government. That is to say, the Provincial share of the revenue has been raised to the whole under the head Registration, and to one-half under the remaining divided heads. On the expenditure side the proportions are the same, except that Land Revenue is wholly Provincial. The scope of the settlement has been enlarged by the provincialization of one-half of the revenue and expenditure under Irrigation.

Tables VI and VII on pp. 389–90 show the chief sources of revenue and the chief heads of expenditure between 1880 and 1904.

The following table shows, in thousands of rupees, the gross Provincial receipts and expenditure, as well as the opening and closing balances for the years 1897–8 to 1903–4:—

	Opening balance.	Gross receipts	Gross expenditure.	Closing balance.
1897–8	17,97	4,29,01	4,41,98	5,00
1898–9	5,00	4,61,62	4,51,58	15,04
1899–1900	15,04	4,25,76	4,40,81	...
1900–1	...	4,52,20	4,52,20	...
1901–2	...	5,15,36	4,57,13	58,23
1902–3	58,23	4,68,85	4,93,08	34,00
1903–4	34,00	4,61,86	4,63,09	32,77

Land revenue.

In the Bombay Presidency (outside Sind) the land revenue system is with few exceptions *ryotwāri*: that is to say, a system of settlement with the ryots or cultivators of small holdings, whose revenue payments are fixed after careful measurement and classification of the land in their possession. The settlement, once made, is in force for a period of thirty years, during which the ryot is at

liberty to alienate his occupancy right; but he cannot be dispossessed by Government so long as he regularly pays the several instalments of land revenue. At the conclusion of the term of the settlement, the revenue payable is liable to revision; but the tenant has a continued right of occupancy provided that he agrees to accept the new terms. His position is thus more secure than it was before the advent of the British Government. In earlier times, it is true, the hereditary occupant, or *mirāsdār*, held land on terms which precluded its forfeiture on failure to pay the revenue demand, unless he absented himself for a term of over thirty years. But, on the other hand, he was liable to extra and arbitrary impositions, and was responsible for the default of neighbouring *mirāsdārs*, while his lien on the land was also conditional on his reimbursing all arrears due and expenses incurred during default. The original settlement of the revenue demand from each occupant made by the British Government was based on the investigations of a Survey department, specially organized for this work. After measuring and mapping every holding, the Survey officers proceeded to classify the fields according to depth and quality of soil, their situation, and natural defects, such as liability to inundation and the like. In this manner the field was placed in a class corresponding to a certain 'anna valuation' or fractional share of the maximum rates calculated in terms of 16. Subsequently villages were grouped into blocks with reference to their nearness to markets, to means of communication, and other economic conditions. The maximum rates for the block were then fixed with reference to these conditions, and to average prices. A field bearing a 12-anna valuation would thus, if situated in a village with a maximum rate of Rs. 4, bear an assessment of Rs. 3 per acre.

It will be observed that in this manner the ryot is called upon to pay a yearly revenue in proportion to the probable income that he can derive from his holding. The advantages offered to him by the system are security of tenure, power of alienation, either temporarily by mortgage or permanently by sale, and a fixed annual demand, subject only to revision at the expiry of the settlement period. The disadvantages are that the revenue is payable in cash, which may involve forced sales of produce; that, being fixed on the average capacity of the land, it is payable, in theory at least, whether the crops are good, bad, or a total failure; and that, in the case of thriftless occupants, who are the majority, the power to alienate the holding, combined with fixity of assessment, has in many instances facilitated reckless borrowing, ultimately reducing the occupant to a mere serf of the money-lender. In other words, the underlying assumption involved in the original survey settlement of Bombay was that, with a moderate and fixed demand of revenue, combined with permanency of tenure, the occupant would be encouraged to thrift and disposed to making improvements. Experience

shows that these very features of the settlement have stimulated a natural disposition to reckless borrowing on the part of the occupant, while offering to capitalists inducements to make advances that never before existed. Recent inquiries tend to the conclusion that, as a result, in some parts of the Presidency nearly three-fourths of the ryots have mortgaged their holdings. Legitimate borrowing by an agriculturist for the development of his land is a process which Government may view with equanimity. Reckless recourse to the money-lender for sums to be dissipated in marriages or other forms of domestic expenditure tends to substitute for the state a landlord concerned only in extracting from the cultivator the full measure of his dues, however excessive the share claimed may be when compared to the total produce of the land. Under such landlords the state of the cultivating classes may not inconceivably constitute a grave political embarrassment.

The original survey settlement of Bombay commenced in 1835 and was concluded in 1882, except in North Kanara and Ratnāgiri, which were completed respectively in 1891 and 1893. Survey operations are now in progress in the Akhrāni *pargana*, a wild and isolated portion of Khāndesh District. The settlement imposed a total revenue demand of 2·7 crores on the twenty-four Districts of the Presidency. The first revision settlement raised this sum by 22 per cent., the revised demand amounting to 3·3 crores. In all but three cases the District revenue was increased, the maximum increases being 50 and 46 per cent. in the case of North Kanara and Thar and Pārkar. For the last thirty years it has been an accepted principle of revision that in no circumstances shall the increase of revenue exceed 100 per cent. on an individual holding, 66 per cent. on a village, or 33 per cent. on a group of villages. Improvements effected by occupants in their holdings from private capital are exempt from taxation at a revision settlement. The special Survey department, having completed its work, has been abolished, and revisions of the revenue settlements are now entrusted to the Assistant or Deputy-Collectors in charge of the District subdivision.

The maximum and minimum rates per acre of assessment on 'dry-crop' and garden land in the various Divisions of the Presidency, under the revised survey settlement, are—Northern Division: 'dry crop,' 6½ annas to Rs. 8–13; garden land, 11 annas to Rs. 16–9; Central Division: 'dry crop,' 3 annas to Rs. 2–11; garden land, 10 annas to Rs. 14–14; Southern Division: 'dry crop,' 1 anna to Rs. 3–4; garden land, 8 annas to Rs. 14–13. In Sind the rates vary from R. 1 to Rs. 6–8 per acre. When land held under the survey settlement is sublet, the rent paid by the tenant varies from two to seven times the Government assessment. In cases of sales, the prices realized average about twenty-five times the assessment, and in some cases are as high as fifty times that sum. It is a noticeable fact that twenty times the assess-

ment of the land will be advanced to the occupant on a mortgage-deed, whereas, if history is to be credited, land would not sell for more than two or three years' purchase, and could not be mortgaged for more than half the gross yearly produce, before the days of British government.

Besides the survey or *ryotwāri* tenure just described, the chief forms of tenure in the Bombay Presidency are known as *tālukdāri*, *mehwāsi*, *udhad jamābandi*, *khoti*, *izāfat*, and revenue-free lands.

The *tālukdāri* tenure is found in Gujarāt, principally in Ahmadābād District. *Tālukdārs* are absolute proprietors of their respective estates, subject to the payment of a Government demand, periodically revised. They do not cultivate the land, but are sharers in its profits, with power to mortgage their shares. Permanent alienation requires Government sanction. These landowners levy rent from their tenants, either by *bhāgbatai*, i.e. taking a share of the crops, or by *bighoti*, i.e. a fixed rate per acre. The *mehwāsi* tenure, also found in Gujarāt, is a system of paying revenue in a lump sum for the village, the amount being fixed at the discretion of the Collector. The payments are made by joint owners of the villages, who are descendants of Kolī or Rājput chiefs, formerly subject in most cases to tribute. *Udhad jamābandi* is a fixed assessment, not liable to revision, on villages, or groups of villages. The *khoti* tenure of the Konkan consists in the holding of village lands by families, who make an annual agreement with Government, and have the right to lease out lands on their own terms. They pay a lump assessment fixed on all the village lands by the Survey department, which is liable to revision. *Izāfat* tenure has arisen from the holdings of hereditary local officers, whose services are no longer demanded but whose holdings pay the full revenue demand, subject to certain concessions. *Ināms*, *jāgīrs*, &c., are tenures wholly or partly free from assessment, of land allotted for services in connexion with the state, temples, &c. The distribution of the lands of the Presidency among the different forms of tenure in 1903-4 was as follows: *ryotwāri*, or survey tenure, 1,392,740 holdings; *tālukdāri*, 497; *mehwāsi*, 62; *udhad jamābandi*, 95; *khoti*, 3,684; *izāfat*, 30; *ināms*, *jāgīrs*, &c., 2,199. In Sind land is held on the irrigational settlement, based on the mode of irrigation adopted. The occupants are liable for the full assessment on each survey number when cultivated, and fallows are assessed once in five years. The land is mostly held by *zamīndārs* or large landholders. There are special forms of tenure in Bombay Island unknown throughout the rest of the Presidency, which are described in the article on BOMBAY CITY.

The land revenue administration of the Presidency is regulated by Bombay Act V of 1879 and the rules passed thereunder.

It is not easy to arrive at any estimate of the land revenue raised from the area of the Presidency before British rule, for the

accounts kept by the Peshwās were very incomplete, and the records which have been preserved are fragmentary. The practice was to entrust the collection of the revenue to farmers (or *ijāradārs*); a certain maximum assessment known as the *kamāl* was imposed on each village, and the government realized from the farmer as large a proportion of the *kamāl* as they were able to obtain. At harvest time a division of the crops (*bhāgbatai*) was made, and the farmer took from the peasant the government share, which varied from one-third to one-half, after deducting the cost of cultivation. The farmer received as his profit the balance between his collections from the cultivator and his payments to the Peshwā. In bad seasons extensive remissions appear to have been made to the farmers, and may have reached the cultivators. In many villages the *kamāl* has been found to be twice as high as the assessment now levied under the survey settlement. In spite of the enormous increase in the area now cultivated, it is probable that the total assessment now raised in the Presidency is far lower than the value of the contributions extracted from the villagers under the Marāthā system. Further it was customary to supplement the land revenue demand by cesses on houses and trades, and for special objects such as the *ghās-dāna* (expenditure on grass and grain). All such cesses have been abolished by the British Government; their only counterpart being a rural cess of one anna in the rupee for the maintenance of roads and schools.

It has already been observed that the original survey assessment was intended to be levied in seasons good or bad, or even of total crop failure. Numerous experiments tend to prove that the demand averages about 8 to 12 per cent. on the gross out-turn from the land. The large profit made by the cultivator in a good year was theoretically expected to cover the revenue demand when the season was bad. As a matter of fact, extensive remissions have been granted during famines or other natural calamities; but hitherto the burden of proving incapacity to meet the revenue demand has been imposed upon the occupant, the dues being collected even in famine tracts unless the occupant can satisfy the authorities of his inability to pay. Apart from the reasons already given, the justification for this course lay in the indebtedness of the cultivator. It was argued that wholesale remissions would chiefly benefit wealthy capitalists, who stood in no need of relief. But, owing to the recent succession of unfavourable seasons, great practical difficulties arose in discriminating the private circumstances of individuals; and, by a change of system introduced in 1907, remissions are in future to be determined solely by the failure of crops and the depressed condition of agriculture in definite tracts.

Two important enactments have a special bearing on the land revenue policy of the Bombay Government. In 1879 the Dekkhan

Agriculturists' Relief Act was passed to cope with agrarian discontent in four Deccan Districts—Poona, Sātāra, Sholāpur, and Ahmadnagar. The Act provided for the appointment of a special judge and numerous conciliators, who were empowered to investigate mortgages and similar alienations of land, to revise the terms of the contract, and to arrange for an equitable settlement of claims, with a view to restoring the original rights of the occupant. The agrarian agitation which led to this measure being passed has not since recurred, but the Act is held to have led to an increase in sales of land in the Districts to which it applies. The Bombay Land Revenue Code Amendment Act of 1901 introduced some changes in the law regarding the grant of survey settlement occupancies, the Collector being empowered, after forfeiting land on which arrears of revenue were due, to grant it free of all incumbrances to an occupant on condition that it should not be mortgaged or otherwise alienated. Infringement of these conditions entails forfeiture of the holding. The object of this amendment was to restrict alienations. Its operation has not so far been sufficiently extensive to justify any conclusion regarding its probable results.

Miscellaneous revenue.

No opium is grown in the Bombay Presidency. Revenue is raised from this drug by means of a duty payable on importation or on issue from the Government dépôt, supplemented by fees for the right of vend. Opium intended for local consumption pays a duty of Rs. 700 per chest of 140¼ lb. A regular export of opium from Bombay to China has existed for many years. The duty on such opium was raised from Rs. 500 to Rs. 600 per chest in 1904. The average volume of this trade is 25,000 chests per annum. The annual local consumption of the Presidency is about 550 chests, equal to 0·13 tola per head of population. For the last twenty years the volume of trade in opium and the duty raised therefrom has been as follows:—

Imports in	Chests.	Duty in thousands of rupees
1880 (ending August)	38,541	2,70,05
1890 (ending August)	30,079	1,80,69
1900 (ending August)	21,638	1,08,36
1902-3 (ending March, for eight months)	15,211	76,28
1903-4 (ending March, for twelve months)	27,498	1,38,32

The opium to which these figures refer is nearly all grown in Mālwā and imported into the Presidency by rail; a small quantity is also raised in the Native State of Baroda. The 'opium' revenue proper consists only of the duty on exported opium; the duty and the receipts from local consumption are credited to 'excise.' The local transport and sale of opium is permissible only under a licence, and the amount which a private individual may possess or carry on his person is strictly

limited. There is a central opium warehouse in Bombay. Elsewhere opium is stored in, and issued from, the Government treasuries.

The retail vend arrangements fall under two classes: (1) The 'selection farming' system, which prevails in the Districts of Ahmadābād, Kaira, Pānch Mahāls, Broach, Surat, Poona, Sholāpur, Ahmadnagar, and Nāsik, by which the monopoly of retail vend for a District, at shops licensed by the Collector, is granted year by year to a farmer selected by the Government. The farmer has to contribute to the cost of the Government preventive establishments, but otherwise pays nothing for his privilege over and above the duty on the opium he sells. Maximum and minimum prices are prescribed in his licence. He may procure his supply direct from Mālwā, or from the opium warehouse at Bombay, or from local Government dépôts. (2) In the Districts of Khāndesh, Bijāpur, Belgaum, Dhārwār, Kanara, Ratnāgiri, Sātāra, Thāna, Kolāba, and in the City and Island of Bombay, at Aden, and in the Baroda cantonment, the 'licence fee' system is in force. Under this system the right of retail vend, either in single shops, or throughout a *tāluka*, or an entire District, is disposed of by auction, the sum paid being in addition to the duty on issues. The licensee must procure his supplies from a Government dépôt, and is bound to sell subject to fixed minimum and maximum prices.

The control of the Opium department in the Presidency proper is in the hands of the Commissioner of Customs, and centres in the Collector of each District, assisted by his ordinary establishment and a staff of opium police. In Sind the control is vested in the Commissioner.

Agreements are in force with all Native chiefs in the Presidency to secure their co-operation in stopping contraband traffic. Under these agreements the cultivation of the poppy is prohibited in the Bombay States, and the chiefs are required to supply themselves with opium from a British dépôt, by purchase wholesale in the Bombay market, or by direct importation from Mālwā under pass, and to retail it to their subjects at prices not lower than the retail prices in British Districts. In return for these undertakings the States are allowed a refund of either the whole or a part of the duty. A few of the States in Mahī Kāntha, Rewā Kāntha, and Pālanpur have been allowed annual compensation for the loss of transit duties.

Salt is the subject of Government control in India, to enable the tax of R. 1 per maund of 82 lb. to be realized[1]. The salt revenue is raised by the sale of Government salt, by the levy of duty on imports, by leasing out private salt-works, and by selling salt on special terms for fish-curing. In the Bombay Presidency proper about 9,000,000 maunds

[1] The tax was reduced from Rs. 2½ per maund to Rs. 2 in 1903, to Rs. 1½ in 1905, and to its present rate in 1907.

of salt are manufactured yearly, and there is also an import of some 300,000 maunds. The gross revenue derived from taxing this production is about 2 crores, and the consumption amounts to nearly 3,000,000 maunds or about 9 lb. per head of the population.

The long line of sea-coast which the Presidency possesses offers special facilities for the manufacture of salt. The chief centres of production are at Khārāghoda on the Rann of Cutch, where salt is produced from brine under Government management, and at Dharasna near Bulsar, Mātunga in Bombay, Sānikatta in North Kanara, and similar factories, some owned by Government and some held by private individuals, where salt is manufactured in pans from sea-water by evaporation.

An extensive import of salt amounting to about 250,000 maunds annually takes place from Portuguese territory. It is manufactured near Panjim, and passes into British territory at Castle Rock by the West of India Portuguese Railway. Small imports by pack-bullock are also registered along the numerous *ghāt* roads that are too steep for cart traffic. The following statistics show the progress in the production and consumption of salt during the last twenty-four years in the Bombay Presidency, including Sind:—

	Salt delivered from salt-works.	Salt imported.*	Salt consumed.	Gross revenue from salt.	Average consumption per head.
	Maunds.	Maunds.	Maunds.	Thousands of rupees.	lb.
1880-1	6,358,517	26,536	2,670,657	1,50,56	9·12
1890-1	8,852,045	13,482	2,978,667	2,16,80	8.83
1900-1	9,514,462	319,495	3,173,089	2,34,06	9 7
1903-4	9,008,878	293,580	2,965,946	1,86,77 †	9·03

* The imports of salt in 1881 and 1891 do not include Goa salt, the special duty having been in force in those years.

† These figures exclude Aden but include certain miscellaneous items which are credited to other heads in Table VI on p. 389.

For the protection of the salt revenue, and for the collection of the duty on manufactured or imported salt, a staff of 1 Collector, 10 Assistant Collectors, and 11 Deputy-Collectors is maintained, who are also responsible for the control of the customs outside the ports of Bombay and Karāchi. This department is subordinate to the Commissioner of Customs, Salt, Opium, and Abkāri. No salt may be manufactured, imported, transported, or exported without a permit from the Salt department. Breaches of the law under this head are punishable with fine and imprisonment. The salt not consumed in the Presidency is exported, after levy of duty, to the Madras Districts, Hyderābād, or Calcutta, or issued free of duty to the Native States of Janjīra, Pātri, Jhinjhūvāda, and Rādhanpur, so long as these States agree to prohibit the manufacture of salt within their own borders. Small quantities of

salt are also issued at special rates for use in recognized fish-curing yards, of which there are 15 in North Kanara and 14 in Ratnāgiri. The quantity of fish cured annually amounts to about 184,000 maunds.

The statistics of salt production and consumption in Sind in 1903–4 were: delivered, 275,000 maunds; imported, 12,725 maunds; consumed, 287,000 maunds; gross revenue, 6¼ lakhs; average consumption per head, 7·37 pounds. There is one fish-curing yard in Sind, curing annually about 5,000 maunds of fish.

The excise revenue is derived from duties, taxes, or fees levied on the manufacture and sale of country liquor, including toddy; the manufacture and sale of country liquors excised at rates leviable under the Indian Tariff Act; the sale of imported foreign liquors; the manufacture and sale of intoxicating drugs other than opium as defined in the Abkāri Act; (5) the local consumption of opium.

The revenue from country liquor, which forms by far the most important of these items, is obtained by—

(*a*) 'The still-head duty, central distillery, and minimum guarantee system.'—This system prevails everywhere except in the City and Island of Bombay, the cantonment of Deesa, and the Districts of Thāna, Kolāba, Ratnāgiri, North Kanara (coast *tālukas*), Belgaum, Sātāra, Poona, Ahmadnagar, Nāsik, and Khāndesh. The exclusive privilege of manufacture and sale of country liquor in each District to which the system applies is farmed out to a contractor, who manufactures the spirit at a central distillery and pays a fixed still-head duty on passing it out for sale in his shops. The contractor pays nothing for the right of vend, but he has to furnish a 'minimum guarantee,' that is, he undertakes that Government shall receive not less than a fixed sum each year on account of still-head duty on liquor issued from the distillery; and he has thus a direct interest in the suppression of illicit distillation, and in the supply to the public from the central distillery of the quantity of liquor required for normal consumption. He is bound to sell spirit of authorized strengths only and within certain maximum prices prescribed. The rates of still-head duty varied in 1903–4 from 12 annas to Rs. 3–10 per gallon of spirit of 25° under proof, corresponding respectively to R. 1 and Rs. 4–13–4 per proof gallon, and from 6 annas to Rs. 1–14 per gallon of spirit of 60° under proof.

(*b*) 'The public or private distillery still-head duty and licence fee system.'—Under this system, which obtains only in the City and Island of Bombay, the manufacture of country spirit is separated from sale and there is no monopoly of either. The number of shops for the sale of country spirit is fixed, and the vend licences are disposed of either by auction or on payment of fees assessed periodically by the Collector on the basis of actual sales. The vendors are at liberty to procure their liquor, on payment of the prescribed rates of still-head

duty, from any of the private spirit distilleries at Uran or from the public toddy spirit distillery at Dādar. There are no restrictions in regard to maximum price. The rates of duty vary from Rs. 1-1-10 per gallon of toddy spirit of 60° under proof to Rs. 2-1-6 per gallon of 25° under proof. The duty per gallon of Uran spirit of any strength up to 10° under proof is Rs. 4.

A system in force in Thāna, Kolāba, and Ratnāgiri, and in the coast *tālukas* of North Kanara District may be briefly described as a combination of these two systems. The rates of duty vary in different tracts from Rs. 2-5-4 to Rs. 3-8-0 per proof gallon of *mahuā* spirit, and from R. 0-11-1 to Rs. 2-2-8 on toddy spirit.

(*c*) 'Contract distillery and separate shop system.'—This system has lately been introduced in the Districts of Belgaum, Poona, Ahmadnagar, Nāsik, Khāndesh, and Sātāra. Its main features are that the right of manufacture is separated from that of retail vend; the right of manufacture of spirit of specified strength at the Government central distilleries or at private distilleries, and of supply to retail vendors, is assigned on competitive tender; and the right of retail vend, subject to the purchased rates of duty, is put up to auction by shops separately, or by groups of shops, or by *tālukas*. The rates of duty in 1903-4 varied from Rs. 3-10-0 in Sātāra to Rs. 4 in Poona, corresponding respectively to Rs. 4-13-4 and Rs. 5-5-4 per proof gallon.

(*d*) 'Contract distillery, separate shop, and minimum guaranteed revenue system.'—Under this system, which was introduced into Khāndesh in 1903 and subsequently in Nāsik, the privilege of manufacturing spirit and supplying it to retail vendors is assigned to tenderers offering to supply spirit of the sanctioned strengths at the lowest rates, while the right of retail vend in shops is disposed of by a system of tenders of minimum guarantee of duty. The rates of duty vary from 12 annas to Rs. 2 per gallon of 25° under proof, corresponding to R. 1 and Rs. 2-10-8 per proof gallon, and from 6 annas to R. 1 per gallon of 60° under proof.

(*e*) 'The lump-sum farming system.'—Under this system, which obtains only in the cantonment of Deesa, the right to import spirit from the town of Deesa, in Pālanpur territory, and to sell it at one shop in the cantonment, is sold by auction every year. No still-head duty is charged under this system.

In 1903-4 the average incidence of *ābkāri* taxation was about 10 annas, and the consumption of country liquor 8 drams per head of population. The average revenue realized was Rs. 3-11-9 per proof gallon, of which Rs. 3-3-8 represents still-head duty. The retail price of country liquor ranged from Rs. 1-2-0 per gallon upwards, according to strength.

Toddy revenue is derived from a tax on the palms from which toddy

is drawn, and licence fees for the right of vend. The rates charged per tree tapped vary materially in different Districts. In all Districts except Nāsik the sale of toddy is conducted under the separate licensing system, under which three kinds of licences are ordinarily allowed: namely, shop licences, tree-foot booth licences, and domestic consumption licences. Shop and tree-foot booth licences are granted on payment of fixed fees—Rs. 10 in some Districts and Rs. 20 in others. Should there be more than one applicant for a shop, the right of sale is disposed of by auction. The domestic consumption licences, which are issued to owners of trees, are granted on payment of tree tax only. In Bombay City toddy shop licences are sold by auction or are granted on payment of fees assessed by the Collector. In Nāsik District the exclusive right to supply and sell toddy is granted to a farmer under the 'minimum guarantee system': that is, the farmer has to pay tree tax on the trees from which he draws toddy, and, if the total amount of such tax is less than the amount of revenue guaranteed, he has to make up the balance. The farmer has further to pay a fee of Rs. 15 for every shop opened by him. Maximum prices for the retail sale of toddy are fixed in all the Districts except Bombay City, where they apply only in the case of tree-foot booth licensees.

There is one brewery in the Presidency, at Dāpuri near Poona. The beer issued is excised at the tariff rate of one anna per gallon, and is sold along with imported liquors. Rum is manufactured at a sugar refinery at Mundhwa near Poona, and issued to the Commissariat department and for sale by foreign liquor shop-keepers; it also is excised at the tariff rate (Rs. 7 per proof gallon)[1]. Rum, spirits of wine, and methylated spirits manufactured at the Rosa (Shāhjahānpur) distillery in the United Provinces and at the Aska and Nellikuppam distilleries in the Madras Presidency are occasionally imported into Bombay on payment of duty at the tariff rates, and are sold under licences for the vend of foreign imported spirits.

The duty realized on spirits, wines, and liquors imported from foreign countries is credited to customs revenue (Imperial), the figures for the Presidency proper being as shown below:—

	Thousands of rupees.
Average of ten years 1881-90	12,20
" " 1891-1900	19,15
In the year 1900-1	21,42
" 1903-4	24,26

The duty realized on spirits, &c., imported into Sind in 1903-4 amounted to nearly 8 lakhs. A small charge for the right of vend at shops, hotels, refreshment rooms, and travellers' bungalows forms the excise revenue from this class of liquor. The maximum fee for

[1] The Mundhwa refinery is to be closed.

such licences is fixed at Rs. 500, except for the City and Island of Bombay, where there is no maximum.

The cultivation of hemp is restricted under the Bombay Abkāri Act, as amended in 1901, to certain villages in the Khānāpur *tāluka* of Sātāra District, and in the Nevāsa, Ahmadnagar, Rāhuri, and Kopargaon *tālukas* of Ahmadnagar District. Drugs manufactured in these *tālukas* are stored in central and bonded warehouses. Duty at the following rates is levied on intoxicating drugs issued from these warehouses or imported from outside the Presidency: *bhang*, 8 annas per seer (about 2 lb.); *gānja*, Rs. 4 per seer; *charas*, Rs. 6 per seer (Rs. 2 prior to April 1, 1904). The wholesale business is separated from the retail vend. Licences for wholesale vend are issued to persons approved by the Collector and the Commissioner of Abkāri on payment of a fixed annual fee of Rs. 15. The privilege of retail vend is sold for each shop separately by public auction. *Gānja* comes to Bombay from the Central Provinces; *bhang* from the Punjab and the United Provinces; *charas*, through the Punjab, from Central Asia.

The revenue under excise derived from the various sources mentioned above, for the ten years from 1880–1 to 1889–90 and 1890–1 to 1899–1900, and for each of the years 1900–1 and 1903–4, for the Presidency (excluding Aden, Bhūj, and Baroda), was, in thousands of rupees:—

Items of revenue	Average revenue* for ten years.		Realizations in	
	1880-1 to 1889-90.	1890-1 to 1899-1900.	1900-1.	1903-4.
Country spirit and toddy	66,72	89,32	85,19	1,02,09
Rum, &c., excised at tariff rates	1,11	43	34	91
Vend fee on imported foreign liquors		1,13	1,41	1,69
Intoxicating drugs other than opium	1,99	3,85	4,75	4,94
Opium	11,42	12,39	7,14	8,52
Miscellaneous	94	88	73	79
Total gross revenue	82,18	1,08,00	99,56	1,18,94
Total net revenue	78,65	1,02,92	95,07	1,12,56
Incidence of net revenue per head of population	Rs. a. p. 0 5 4	Rs. a. p. 0 6 1	Rs. a. p. 0 6 0	Rs. a. p. 0 7 1

* These figures refer to the year ending July 31.

The administration of the Excise department is similar to that which has been described in the case of opium. Some of the Native States have leased their excise revenue to the British Government for a period of years, in consideration of a sum paid annually in compensation, and these have been attached for excise purposes to the adjacent British

Districts. Others work under the British system, while others again have agreed to maintain a shopless belt along the joint frontier.

Foreign liquors are largely consumed in towns like Bombay, Poona, and Belgaum, where there is a numerous European, Eurasian, and Pārsī population; and to a smaller extent by the higher classes of Hindus in large towns. Consumption has undoubtedly been extended by plague, the use of these liquors being considered as a prophylactic. Spirit distilled from *mahuā* is consumed in all Districts, except Ratnāgiri, because this is the cheapest fermentable material. In Ratnāgiri, Kanara (coast), the City of Bombay, and a part of Thāna District, toddy spirit is largely used for the same reason; but in this case habit has something to do with the preference for this spirit. Rum or molasses spirit is used to a limited extent in Poona, Sātāra, Belgaum, and Dhārwār Districts. Toddy is consumed in almost all parts of the Presidency, especially in Surat, Thāna, Belgaum, Bijāpur, Dhārwār, and Poona, where a large number of palms are available. Of the intoxicating drugs, *gānja* is principally used for smoking, particularly in Bombay, Poona, Ahmadābād, Surat, Khāndesh, and Kanara. *Gānja* smoking is regarded as a protection against cold, and the consumption is greatest during the cold season. *Bhang* is used in the form of drink and of sweetmeats, but more particularly as a drink, in the City of Bombay, in the Gujarāt Districts, and in the Native States of Cutch and Kāthiāwār. The drinking of *bhang* is regarded as having a cooling effect in hot weather. *Charas*, a very strong intoxicant, is used for smoking only in Bombay City and in Ahmadābād. Opium is largely consumed in Bombay, Poona, Khāndesh, in the Gujarāt Districts, and in the Native States of Cutch and Kāthiāwār. The consumption is greatest among races which were originally resident in Central India or in tracts adjoining it.

The efforts made by Government to restrict the consumption of liquors, intoxicating drugs, and opium may be summed up as follows:—

(1) Imposition on these articles of taxation as high as is compatible with the avoidance of illicit production or importation;

(2) Abolition of the outstill system, and concentration of the manufacture of spirits at central or private distilleries under the supervision of Government establishments;

(3) Limitation of the number of places at which liquor or drugs can be purchased, with due regard to the circumstances of each locality;

(4) Limitation of the quantity of liquor or drugs which may be legally transported or possessed; and

(5) Employment of preventive establishments to check production and smuggling.

The general feeling of the public on the subject of intoxicants is

adverse to their use, and there is a tendency to assume that the policy of Government encourages consumption. The secular education provided by the state undoubtedly has this effect, by weakening social and religious influences, and the example of Europeans leads the educated classes towards the consumption of foreign liquors. These effects are generally deplored. At the same time native publicists are apt to forget that fermented and distilled liquors, as well as opium and intoxicating drugs, have always been freely used in India. The existing system is entirely defensible in principle; and staunch advocates of temperance among the natives themselves admit that over large areas, and for large classes of the population, the use of a narcotic stimulant of some kind is actually necessary owing to climatic reasons and the conditions under which life has to be lived. There is no doubt room for improvement in detail, and the attention of Government is steadily directed to this—one of the most difficult problems with which it has to deal.

In 1894 the taxation of imported cotton goods at 5 per cent. was accompanied by the passing of an Act imposing a similar tax on locally produced cotton goods. In 1895 the tax was replaced by one of 3½ per cent. on cotton fabrics, whether imported or locally produced by machinery, yarns being duty-free. The excise or local duty is collected, through the agency of the Bombay Custom House, by an assessment on monthly returns of cotton fabrics issued from the mills. The total net revenue derived from this source is 17 lakhs, the annual taxable output being nearly 113,000,000 pounds of cloth. A rebate of the full duty is allowed on cloth exported to foreign countries.

The stamp revenue is collected under the authority of the Court Fees Act and the Stamp Act, which are uniform for all India and are described in Vol. IV, chap. viii. The revenue from judicial and non-judicial stamps during the last twenty years has been, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Judicial . . .	22,99	29,79	33,68	35,09
Non-judicial . .	18,72	23,77	25,22	26,39
Total	41,71	53,56	58,90	61,48

The sales of stamps of all descriptions are steadily increasing in normal years. In 1900–1 the prevalence of widespread famine caused a slight falling-off in the sale of court-fee or judicial stamps; but the decline was only temporary, and the sales have since recovered and exceeded their former volume.

The income-tax revenue is collected under an Act applying to the whole of India, and described in Vol. IV, chap. viii. In Bombay City a special Collector is appointed for assessing and collecting the revenue:

elsewhere the duty is entrusted to the ordinary revenue staff. The net annual revenue for the decennial periods since the tax was introduced has been as follows, in thousands of rupees: (1886–90) 34,24, (1891–1900) 38,59, (1900–1) 38,62. Of the total of 36¾ lakhs collected in 1903–4, 21¾ lakhs, or 59 per cent., was levied in Bombay City, which contributes nearly one-tenth of the yield of the tax for the whole of India. In the whole Presidency the incidence of the tax is about 3 annas per head, while the average number of assessees per 1,000 of population is 4.

The customs administration of the Presidency (excluding Sind) is in charge of a Collector for Bombay, and a second Collector, who is also the Collector of Salt, for the smaller ports of the Presidency. In Sind there is a Collector of Customs at Karāchi, subordinate to the Commissioner in Sind. A large preventive staff, under numerous Assistant Collectors of Salt and Customs, is maintained to patrol and guard the long coast-line, as well as the land frontier overlooking the Portuguese possessions and the Native States of Northern Gujarāt. Most of the dutiable articles imported pass through Bombay. Castle Rock on the Goa frontier is, however, a customs post of increasing importance, owing to the recent growth of direct trade between Marmagao and Europe. The respective share of the customs revenue of the Presidency collected at these several points in 1903–4 was: Bombay, 174 lakhs; Karāchi, 33 lakhs, land posts and minor ports, 2¼ lakhs. In 1904 the Kāthiāwār frontier line was opened, with a chief customs station at Viramgām. In 1882 the duties on imported goods not falling under special categories, such as arms, salt, and liquors, were abolished, to be replaced in March, 1894, with the exception of cotton goods, which were not restored to the dutiable list till the end of that year. The cost of collecting the customs duties amounts to 4 per cent. on the total receipts. The chief items are derived (1903–4) from cotton goods, hardware and metals, oil, sugar, and liquors, as follows: cotton goods, 35 lakhs; hardware and metals, 46 lakhs; oil, 18 lakhs; sugar, 20 lakhs; and liquors, 32 lakhs. In most cases the import duty amounts to 5 per cent. on the value. Cotton goods are admitted at 3½ per cent., and arms and liquors pay at higher rates. There is an export duty of 5 per cent. on all rice exported, yielding over 4¼ lakhs. With a view to stimulating local industries, coal and machinery are allowed to be imported free. Dutiable goods re-exported within three years are, on satisfactory proof of identity and of payment of duty, granted a drawback amounting to seven-eighths of the duty paid. Table VIII, showing the annual yield of the import duties on the chief articles imported into the Bombay Presidency since 1895, when the tariff was put on its present basis, and the total yield for the same years, will be found on p. 391.

Local control over certain branches of the administration is secured by the constitution of local boards and municipalities, the former exercising authority over a District or a *tāluka*, and the latter being entrusted with the care of a city or town. These local committees are composed of members either nominated by Government or elected by the people, who are empowered to expend the funds at their disposal on education, sanitation, the construction of roads and tanks, the prevention of nuisances, and generally in improving the area committed to their charge.

Local and municipal.

Each District has a District board, which receives the proceeds of a cess amounting to one anna in the rupee on all land revenue in the District, all toll and ferry funds, and some minor items. One-third of the funds thus received must be spent on education; but the board is otherwise free to direct the expenditure of its funds as it pleases, subject to the limitations imposed by the law constituting the boards. The District boards make over a part of their revenues to the *tāluka* boards, who may expend it on similar works within the limits of the *tāluka*. The origin of these committees dates from 1863, when the Bombay Government sanctioned the establishment of Local funds for the promotion of education in rural Districts and the construction or repair of local roads. The District committees were to consist of the principal Government officers of the District, and other members to be selected by the Collector. *Tāluka* committees were to be composed of the Collector, the subdivisional officer, the *māmlatdār*, and three or more members nominated by the Collector. This system was for a few years carried out without the aid of legislation; but as it was subsequently found necessary to legalize the levy of the local cess, Bombay Act VIII of 1865 and Act III of 1869 were passed for this purpose, the former being applicable to Sind, the latter to the remainder of the Presidency. In 1884 a new Act (I of 1884), styled the District Local Boards Act, placed these committees on a more popular basis. The *tāluka* board, which is the unit of rural self-government, thenceforth consisted of an equal number of elected and nominated members, excluding the president. The right of voting at elections was conferred on honorary magistrates, revenue or police *pātels*, landholders paying at least Rs. 48 assessment, owners of immovable property worth Rs. 5,000, persons with a yearly income of Rs. 500, and pensioners on Rs. 50 and over a month. Holders of alienated villages, and municipalities of 5,000 inhabitants and over, could also return members to these boards. The District board was to consist of certain nominated members and of members elected by *tāluka* boards, by municipalities with a population of not less than 18,000 inhabitants, and by the holders of alienated villages. Usually the Collector is president of the District board thus constituted, while his assistants preside over *tāluka* boards in their

charges. The vice-president may be either an official or an unofficial member, and is elected by the board. The number of local boards as thus constituted was 231 in 1903–4: namely, 46 in the Northern Division, 72 in the Central, 56 in the Southern, and 57 in Sind. They contained 32 *ex-officio* members, 1,941 nominated and 1,600 elected members. The taxation raised by these boards on a population of more than 17 millions averages 4·4 annas per head, and they had in 1903–4 an aggregate income of 48 lakhs. The chief items of expenditure are education and public works, to which over two-thirds of their income is devoted. The boards are called on to contribute, to the extent of their capacity, to the cost of famine relief measures, or to the suppression of dangerous epidemics in the area under their control.

The origin of municipal government in the Province outside Bombay City is Act XXVI of 1850, which permitted the establishment of municipalities in towns where the people applied for them, and restricted the expenditure of money raised by such bodies to the making and repair of public streets, drains, tanks, &c., and the prevention of nuisances. In 1862 further legislation empowered municipalities to spend money on dispensaries, hospitals, schools, and road-watering, and by the same Act the Government received the power to coerce recalcitrant municipalities into carrying out measures urgently needed. In the course of twenty years the Act of 1850 was taken advantage of by only 96 towns, the population of urban areas being generally unwilling to submit to municipal taxation and control. An Act (VI of 1873) was therefore passed dividing municipalities into city and town municipalities, the executive power in the former being entrusted to the municipal commissioners as a body, and in the latter to the president, vice-president, and chairman. The elective franchise could be granted to city municipalities, and a town municipality could receive this privilege where the residents showed sufficient public spirit to justify the measure. In 1882 the control of local elementary education was given to municipalities. In 1884 a new Act (II of 1884) was passed, abolishing the former distinction between city and town municipalities and extending the elective element. The municipal law in the province of Sind was at the same time placed on the same footing as that of the Presidency proper. In 1901 a further enactment (III of 1901) enlarged the powers of municipalities, and re-established their division into city and town corporations. The former are allowed to appoint executive officers with extensive functions, and to possess wider powers for dealing with the recovery of taxes, the construction of new buildings, and outbreaks of epidemic disease. By this Act rates may be levied in certain areas which do not possess municipalities, the proceeds being devoted to the same objects as those for which municipal taxation is raised. Excluding

Bombay City there were 165 municipal towns in the Presidency in 1903–4. Of these only 4 have a population of over 100,000, and 69 have a population exceeding 10,000. Of the total of 2,252 members, 473 are *ex officio*, 881 are elected, and 898 nominated by Government. The population of municipal areas is 2,380,748, from which taxation amounting to 39 lakhs is levied, at an average of Rs. 1–10–7 per head. The total municipal income is over 71 lakhs, and the chief items of expenditure are conservancy and education. Administration and the cost of collecting taxes involve a charge of 8 per cent. on the total income. Tables IX and X on p. 392 show further financial details for District boards and municipalities for the years 1890–1900, 1900–1, and 1903–4.

It would be difficult to assert that the result of the establishment of these numerous local bodies has been to develop in any marked degree civic ardour for local affairs, or a sense of responsibility regarding the expenditure of the proceeds of local taxation. In many cases the ear-marking of one-third of the total income for expenditure on education, and the very large share of the balance that must necessarily be devoted to establishment charges and the upkeep of roads, leaves little scope for the exercise of the power of control that members possess; and this necessarily diminishes the interest that the control of local affairs might otherwise inspire. The system is, however, of educative value, inasmuch as it accustoms the people to the working of popular institutions.

The Presidency contains three Port Trusts—at Bombay, Karāchi, and Aden. Of these, the Bombay Port Trust, constituted in 1873, consists of 13 members, partly nominated by Government and partly elected by the Chamber of Commerce. The port of Karāchi was entrusted to a Harbour Board in 1880, which was subsequently created a Port Trust on the lines of the similar body in Bombay. The Aden Trust dates from 1889. The trusts are in charge of the wharves, docks, harbour, lights, &c., and are charged with the duty of providing conveniences for the trade and shipping of the ports

For the last thirty years the income and expenditure of these Trusts has been, in thousands of rupees:—

	Receipts.			Expenditure.		
	1881–2.	1891–2.	1903–4.	1881–2.	1891–2.	1903–4.
Bombay	37,46	48,10	64,41	28,73	46,24	56,98
Karāchi	4,48	9,57	19,58	3,77	5,14	13,87
Aden	...	1,92	4,66	...	2,56	3,78

Among works of importance carried out by these bodies are the Prince's Dock, the Merewether Dry Dock, and the Victoria Dock at

Bombay, and the new docks at Bombay still in course of construction.

The Public Works department is controlled by two Chief Engineers, who are also secretaries to Government, by Superintending Engineers in charge of Divisions, Executive Engineers in charge of Districts, and such Assistant Engineers as may be required by the circumstances of the Districts. The officers deal with all classes of public works, but additional Executive Engineers are in some instances posted to take charge of important irrigation works. The staff in 1905 consisted of 2 Chief Engineers, 5 Superintending Engineers, excluding the Sanitary Engineer and Consulting Architect to Government, who is a temporary officer, 33 Executive Engineers, and 44 Assistants. There were also one apprentice and one Executive Engineer lent by the Government of India. Six temporary Engineers are under three to five years' covenant, and twelve under yearly sanction. The department is concerned with the construction and maintenance of all works, such as roads, bridges, hospitals, offices, irrigation reservoirs, canals, and the like, that are too costly and important to entrust to the professional staff of local bodies; it also checks the plans and estimates of all but the most insignificant works undertaken by those bodies. The Executive Engineer is, moreover, a member of each District board.

Public works.

In 1881 the total expenditure of the Bombay Public Works department, exclusive of irrigation, was about 64 lakhs. During the ten years ending 1900, the average was 123 lakhs, and in 1903-4 the expenditure was 71 lakhs. Apart from the maintenance of the roads, irrigation works, and buildings already in existence at the commencement of this period, the expenditure of the department has been devoted to original works, of which the most costly, and the most important in developing the resources of the country, are water storage and irrigation works. Chief of these is the JAMRAO CANAL in Thar and Pārkar District, constructed at a cost of 66 lakhs, which has opened a hitherto uncultivated tract to settlers from other parts of the province of Sind and from the Punjab. A like expenditure incurred on the Muthā Canal in Poona District has rendered the water of the Muthā river available for cultivation, while the Nīra Canal in the south-east of the same District cost 54 lakhs in construction. At Gokāk, in Belgaum District, the waters of the Ghatprabha have been impounded by a masonry dam, and made available for the working of the Gokāk cotton-mills, as well as for the irrigation of the land in the vicinity. This work, which is capable of extension when required, has so far cost 13 lakhs. At Mhasvād in Sātāra and at Ekrūk in Sholāpur irrigation tanks have been constructed at a cost of 20 and 12 lakhs respectively. Numerous smaller irrigation works, among which may be mentioned the Jāmda canal in Khāndesh,

the Kistna canal in Sātāra, and the reservoirs at Kapurvādi in Ahmadnagar, at Ashti in Sholāpur, and at Vāghad in Nāsik stand to the credit of the Public Works department. It has also carried out many large schemes for improving the water-supply of big cities. Chief of these are the Surat and Kirkee water-supply schemes, costing 9½ and 7½ lakhs respectively. The expenditure of the department on irrigation in 1880–1 was 21 lakhs, the average for the ten years ending 1900 was 36 lakhs, and 52 lakhs was spent in 1903–4.

As funds are available, the construction of fresh trunk and feeder-roads is undertaken either by the department or by local boards; but progress in this direction is retarded by the necessity of providing for the subsequent upkeep of such works, on which the wear and tear of monsoon rainfall is very heavy. Hospitals, lunatic asylums, school-houses, offices for Government business, and lighthouses, help, with an occasional drainage scheme, to fill the rest of the public works programme. The more costly works of these descriptions undertaken in the Presidency during recent years are the following:—

Roads.—From Belgaum to the port of Vengurla, 78 miles; from Godhra to Dohad, 43 miles; from Mahād to Mahābaleshwar via the FitzGerald *ghāt*, 36 miles; from Kolhāpur to Ratnāgiri via the Ambā *ghāt*, 82 miles; from Nadiād to Kapadvanj, 27 miles; from Gokāk to Nargund, 50 miles.

Hospitals, &c.—The Bai Motlibai and the Sir Dinshaw Mānekji Hospitals in Bombay, a military hospital at Ahmadābād, and a civil hospital at Aden.

Lunatic Asylums.—At Navāpāda near Thāna, and at Ratnāgiri.

Schools.—The Elphinstone College and High School at Bombay, the training college at Dhārwār, and the Gujarāt College at Ahmadābād.

Among other buildings may be noted the High Court (cost 17 lakhs) and Small Cause Court in Bombay; the Bombay Police Courts; the Treasury and Courthouse at Aden; and the new Rock lighthouse at Vengurla.

Since 1884 the chief water-supply and drainage works undertaken by the municipalities of the Presidency have been:—

The Tānsa water-works in Bombay (cost 150 lakhs); the drainage of Bombay City (8 lakhs); the Hubli water-works (5 lakhs); the Ahmadābād water-works (4 lakhs); and the Surat supply scheme.

Army.

The total number of troops stationed within the Presidency on June 1, 1904, was 22,008, of whom 9,215 were British, and 12,793 belonged to the Native army. Bombay Presidency, except Aden, is garrisoned by the Quetta, Mhow, and Poona divisions of the Western Command, of which the

troops at Aden form an independent brigade. The military stations 1904 were:—

Quetta Division.	*Poona Division.*
Hyderābād.	Ahmadnagar.
Jacobābād.	Belgaum.
Karāchi.	Bombay.
Manora.	Deolāli.
Sukkur.	Hubli.
	Igatpuri.
Mhow Division.	Khandāla.
Ahmadābād.	Kirkee.
Bhūj.	Poona.
Deesa.	Purandhar.
Pālanpur.	Sātāra.
Rājkot.	Sirūr.

Aden Brigade.

Aden; Perim: Shaikh Othmān.

Bombay and Karāchi possess arsenals, and Kirkee an ammunition factory. A gun-carriage factory hitherto located at Poona has recently been closed.

The Volunteers of the Presidency, with head-quarters at Bombay, Poona, Karāchi, Belgaum, Hubli, and at several other smaller stations, numbered 3,594 in 1904, of whom 352 were artillery and 65 were light horse or mounted rifles.

Many of the Native States maintain small bodies of troops; the principal are:—

	Infantry.	Cavalry.	Total.
Kolhāpur	734	156	912*
Cutch	572	284	856
Navānagar	1,058	26	1,093*
Junāgarh	1,788	62	1,884*
Bhaunagar	288	51	339
Savantvādi	286	...	306*

* Includes a small force of artillery.

Police and jails.

The Bombay police consists of several distinct forces: the regular District police, the Bombay City police, the railway police, and the village watch. The last-mentioned body is maintained only in certain parts of the country, and at the expense of the villagers. The Bombay City police is described in the article on Bombay City. The District police is a stipendiary force divided into grades, beginning with constables on Rs. 7 a month. *Tālukas* and Districts are in charge of chief constables and a District Superintendent respectively, between whom are placed inspectors, and, occasionally, Assistant Superintendents. Chief con-

stables thus correspond to sub-inspectors in other parts of India. The District Magistrate controls the police administration of the District, subject to the orders of the Commissioner, and uniformity in matters of routine is ensured by the appointment of an Inspector-General for the Presidency (excluding Sind). A part of the District police force is armed, and employed in guarding jails and treasuries, or escorting prisoners and treasure. In 1904 the District force consisted of 17,173 men, of whom 12,107 were armed. The proportion of the police to area and population is determined by local conditions. The Northern Division has one policeman to every 4 square miles and 1,064 persons; the Central Division, one to 9 square miles and 1,477 inhabitants; the Southern Division, one to 9 square miles and 1,934 inhabitants; and Sind, one to 16 square miles and 1,076 inhabitants. About 1,000 of the police are mounted, mainly for service as orderlies.

Under native rule, District police were unknown; and the responsibility for detecting crime rested entirely on the village until the days of Nāna Farnavīs, when inspectors (*tapāsnavīs*) were appointed to discover offences. The *pātel* was responsible for the police of his village. His responsible assistant was the village watchman (*mahār*), whose duties were to keep watch at night, to find out all arrivals and departures, watch all strangers, and report all suspicious persons to the head man. The watchman was also bound to know the character of each man in the village; and when a theft was committed within village bounds, it was his business to find the thief. He was enabled to do this by his early habits of inquisitiveness and observation, as well as by the nature of his allowance, which, being partly a small share of the grain and similar property belonging to each house, required him always to be on the watch to ascertain his fees, and always in motion to gather them. When a theft or robbery occurred, the watchman began his inquiries and researches. It was very common for him to track a thief by his footsteps; and if he did this to another village so as to satisfy the watchman there, or if he otherwise traced the property to an adjoining village, his responsibility ended. It then became the duty of a watchman of the new village to take up the pursuit. The last village to which the thief had been clearly traced became answerable for the property stolen, which would otherwise have had to be accounted for by the village where the robbery was committed. The watchman was obliged to make up this amount as far as his means went, and the remainder was levied on the whole village. Only in particular cases was the restoration of the value of the property insisted on to its full extent. Some fine was generally levied; and neglect or connivance was punished by transferring the grant or *inām* of the *pātel* or the watchman to his nearest relation, by fine, by imprisonment in irons, or

by severe corporal punishment. This responsibility was necessary, as, besides the usual temptation to neglect, the watchman was himself a thief, and the *pātel* was disposed to harbour thieves with a view to share their profits.

The village watch do not receive regular monthly pay. They are controlled by the village headman or *pātel*, on whom lies the duty of calling in the District police when crimes are committed. His subordinates guard the village and assist in the apprehension of offenders. The *pātel* and his assistants are important features in the machinery for detecting crime, and the success of the District police in that direction largely depends on the amount of assistance received from them. In the Deccan these village watchmen are recruited from the Rāmosis, who were formerly a criminal and marauding tribe. Each village possesses five or more of these men, who are paid in kind and occasionally have a portion of the village lands assigned to them. Rāmosis are also employed in towns as night-watchmen for offices and dwelling-houses, and in this capacity they form a recognized division of the town police. *Pātels* are still permitted in certain instances to investigate and punish petty offences without the intervention of the District police. In Sind there are no village police, their place being taken by the *zamīndārs*, whose assistance is of great value in the detection of crime. The employment of *pagis* or professional trackers is common. They are skilful in their work, and are rewarded by gifts from the owners of stolen animals, or payments by the community.

The office of Inspector-General of Police has two special branches, dealing with criminal investigation and criminal identification. The former was organized in 1901 for the detection of serious crime the ramifications of which extend beyond the limits of one District. The latter records and traces the identity of criminals by means of thumb-marks and finger-tip impressions. A special police organization exists in connexion with the railways of the Presidency. Each of the principal lines is organized like a District, under a Superintendent who is directly subordinate to the Inspector-General, and is employed in travelling along the line, inspecting platform constables, and investigating crimes.

In cantonments the military authorities provide a small number of military policemen to assist the local police force in the maintenance of order in cases where military offenders are concerned. The control of this staff rests with the military authorities. The result of the work of the police and the strength of the various grades of the force in the last twenty years are shown in Tables XI and XII on p. 393.

In 1904 the total force in the Presidency, including railways and Sind, but excluding the City of Bombay, was 22,380 officers and men and cost 45 lakhs.

While this article was passing through the press the force was

reorganized, the principal changes being the appointment of Deputy-Inspectors-General for Sind, for the rest of the Presidency, which has been divided into two ranges, for railways, and for crime; the appointment of Deputy-Superintendents of police; and an increase in the numbers and salaries in the lower grades. The control and direction of the police still rest primarily with the District Magistrates, while the control formerly exercised by Commissioners of Divisions has practically been transferred to the Inspector-General.

Reorganization.

Statistics relating to the jails of the Presidency will be found in Table XIII on p. 393. The Jail department is under the administration of an Inspector-General, who ordinarily belongs to the Indian Medical Service. A full-time Superintendent is employed at each of the three Central jails—at Hyderābād, Ahmadābād, and Yeraoda; the District jails are in charge either of full-time civil officers who are not medical men or of civil surgeons as additional charges, and lock-ups are under local magistrates. Of the District jails, those at Thāna and Aden, as also the House of Correction and the common prison at Bombay, are known as special jails, as they accommodate long-term prisoners. Excepting Aden, each of these has a full-time Superintendent. The most prevalent diseases of the prison population are intermittent fever, diarrhoea, dysentery, and pneumonia. Numerous industries are carried on in the jails, the chief of which are the weaving of cotton goods, such as jail clothing, coarse cloth, towels, and *darīs*; carpet-making; basket work; and printing. The out-turn is sold to the general public at rates which usually exceed the ordinary market prices; but the excellence of the articles ensures a regular demand for them. Numerous articles are also supplied direct to Government departments, while a printing press at the Poona Central jail, started in 1900, relieves the Government Press in Bombay of much routine printing.

The Presidency contains two reformatories, one at Bombay and one at Poona. Both are under the control of the Educational department. The latter is classed as an Industrial school. In 1904 there were 380 inmates in these institutions receiving instruction in agriculture or industries.

Education.

Under native rule craftsmen were taught their arts at home by their fathers, while traders and secular Brāhmans learnt to read, write, and cast accounts in private schools. Higher education was represented by Sanskrit *pāthsālas* and Muhammadan *madrasas*, which often shared in religious endowments. The later Peshwās held a yearly distribution of gifts (*dakshina*) to learned Brāhmans, which at last took the form of indiscriminate alms-giving, and cost five lakhs a year. The British conquest of the Deccan was followed by the opening of many missionary schools and by the

organization, under the guidance of Mountstuart Elphinstone, of a system of Government schools in the Districts. In 1821 a part of the *dakshina* grant was devoted to the creation of a Sanskrit College at Poona, which afterwards grew into the existing Deccan College, and in 1827 a large sum was raised by subscription to found the Elphinstone College at Bombay. In 1840 a Board of Education was created, which, under the influence of Sir Erskine Perry (1843–52), devoted itself chiefly to improving the teaching of English, in the hope that the love of knowledge would filter down from the higher classes to the lower. The Grant Medical College was opened in 1845, and the Poona College of Science grew out of an engineering school founded in 1854. The Board of Education was abolished in 1855 on the constitution of the existing Educational department, to carry out the policy of Sir Charles Wood's famous dispatch of 1854. The Bombay University was established in 1857. The establishment of public primary schools by the local boards under the guidance of the Educational department dates from the levy in 1863 of the Local fund cess, one-third of which is set aside for education. In 1884 the burden of supporting primary schools in municipal towns was transferred from the local boards to the municipalities. Soon afterwards the system of grants in aid of private effort was greatly expanded in accordance with the views of the Education Commission.

The Educational department is administered by a Director, who has under him an Inspector in each Division and a Deputy-Inspector, with assistants, in each District. These officers inspect all schools that receive state aid, and also administer the public primary schools supported by local boards. The Director and three of the Inspectors are recruited from England, while the other Inspector belongs to the Provincial service, and the deputies and their assistants to the Subordinate service. Two Inspectresses of Girls' Schools, recruited from England, have lately been added. The Government maintains two Arts colleges, one Medical college, and a College of Science, the teaching staff of which includes twenty-one professors recruited from England and fourteen belonging to the Provincial service. The Government also maintains in Bombay and at the head-quarters of each District (except Ahmadnagar, Kolāba, Lārkāna, Thar and Pārkar, and Upper Sind Frontier) a high school as a model secondary institution. Three head masters of high schools are recruited from England, and the rest belong either to the Provincial or the Subordinate service.

The Bombay University up to 1905 was a body corporate consisting of the Chancellor, who was the Governor of the Presidency for the time being, the Vice-Chancellor, appointed by Government for a term of two years, and a Senate of about 280 Fellows, nominated by Government of its own motion, or, in the case of two appointments every year,

on the recommendation of the University. Under the new constitution introduced by Act VIII of 1904 the total number of Fellows is 110, of whom not more than 10 are *ex-officio* Fellows and the remainder are styled Ordinary Fellows. Of the Ordinary Fellows ten are elected by the Graduates, ten by the Faculties, and the rest are nominated by the Chancellor. At least two-thirds of the total number of Fellows elected by the Faculties or nominated by the Chancellor must be persons following the profession of education. The executive government of the University vests in the Syndicate, which is composed of the Vice-Chancellor, the Director of Public Instruction, and not less than seven or more than fifteen *ex-officio* or Ordinary Fellows elected by the Senate or Faculties. The Senate, or general body of Fellows, is the legislative authority of the University. The function of the University has hitherto been to ascertain, by means of examination, the persons coming from affiliated colleges who have acquired proficiency in different branches of literature, science, art, and to reward them by academical degrees as evidence of their respective attainments. Under the new Universities Act, it will be able to provide for direct higher instruction and to exercise a closer supervision over its colleges. The degrees given are those of Bachelor and Master of Arts (B.A., M.A.) and Bachelor of Science (B.Sc.); in Law, that of Bachelor of Laws (LL.B.); in Medicine, Doctor of Medicine (M.D.) and Licentiate in Medicine and Surgery (L.M. & S.); in Agriculture, that of Licentiate in Agriculture (L.Ag.); and in Civil Engineering, those of Licentiate of Civil Engineering (L.C.E.) and Master of Civil Engineering (M.C.E.). Of the ten Arts colleges, excluding Baroda, affiliated to the University, all but one (the Rājārām College at Kolhāpur) teach the full degree course for B.A.; and the B.Sc. classes (full degree) are at the Elphinstone, Wilson, St. Xavier's, and Fergusson Colleges. There are also B.Sc. classes at the Grant Medical College at Bombay and the College of Science at Poona. The Government Law School, Bombay, educates up to the full LL.B. standard, while six law classes attached to Arts colleges teach up to the first LL.B. examination only. The Grant Medical College, Bombay, teaches the full course; and the College of Science at Poona teaches the agricultural and engineering courses. Of the Arts colleges, two are maintained by Government and four by Native States, including one in the State of Baroda; and all the rest, two of which belong to missionary bodies, while the other three are managed by committees, receive aid from the Government. There are no purely private proprietary colleges. The most important Arts colleges are the Elphinstone, Wilson, and St. Xavier's Colleges in Bombay, and the Deccan and Fergusson Colleges in Poona. The total expenditure of the University in 1903-4 amounted to about 1⅛ lakhs, which was more than covered by fees, &c.

Candidates for the B.A. degree are required to have attended an affiliated college for eight terms (four years). A similar course is required for the B.Sc. degree, while for the L.C.E. and L.Ag. degrees one year in an Arts college followed by three years in a Science college, and one year in an Arts college followed by two years in a Science college, are respectively required. Four years in a Medical college are necessary for a candidate for the L.M. & S. degree, and the M.D. degree can be conferred only on those who have graduated in both Medicine and Arts (eight years). A two years' course is required from the candidate for the LL.B. degree. The M.A. degree can be obtained at any time, usually one year, after graduating in Arts. Hostels for resident students are attached to every college, except St. Xavier's in Bombay and the Junāgarh and Bhaunagar colleges in Kāthiāwār.

The other examinations conducted by the Bombay University are the matriculation (the entrance examination for Arts and Medical courses), previous (the first examination in Arts and the qualifying examination for Agriculture and Engineering courses), intermediate Arts and intermediate Science examinations; in law, first LL.B.; in Medicine, Agriculture, and Engineering, there are first and second examinations before appearing for the degree examination of the course.

The normal type of secondary education is a course of seven standards, in all of which, except the first three, English is the medium of instruction and the leading subject studied. This course leads up to the University matriculation or the school final examination[1], the two courses bifurcating after the fifth standard. They differ in that in the school final course a number of optional subjects are prescribed, out of which two have to be taken with compulsory English, a second language, and arithmetic. Of the secondary schools for boys in the Presidency (1903-4), 106 are high schools and 318 middle or Anglo-vernacular schools teaching the first three standards only, 26 are maintained by Government and 113 by Native States, while 209 (of which 68 are maintained by municipalities or local boards and 141 are under private management) receive Government grants-in-aid and 76 are unaided. The Government grant-in-aid for any year is fixed at one-third of the total expenditure of the school in the previous year, and may in no case exceed one-half the local assets of the school. The grant is reducible to one-fourth or one-fifth of the expenditure, according to the efficiency of the school. Of the male population of school-going age 2·2 per cent. attended public secondary schools in 1903-4. The progress made in secon-

[1] Since 1904 this examination has been conducted by the Educational department, and the course was altered in 1906.

dary education during the last twenty years is shown in the following table:—

	Number of public institutions.	Scholars.	
		Males.	Females.
1880-1	292	20,028	1,334
1890-1	403	37,941	3,773
1900-1	484	42,554	5,074
1903-4	492	40,987	5,035

Primary schools are of two types, one of which teaches a course of seven standards which aims at giving a complete vernacular education, while the other has a course of five simpler standards devised to meet the needs of the cultivating classes. The transition to secondary education occurs after the fourth standard of the full vernacular course. The majority of the schools of both types are maintained by District or municipal boards. In 1903–4 Government maintained 11 primary schools for boys, District and municipal boards 4,729, and Native States 2,060, while 1,534 schools under private management received Government aid and 118 were unaided. The District board schools are administered by the Educational department, and, like the municipal and the more efficient aided schools, receive grants equal to one-half of their expenditure, and teach the Government standards. A certain number of indigenous schools receive small lump grants, in the hope that they may grow into primary schools of the Government type. Of the male population of school-going age, 19·8 per cent. attended public primary schools in 1903–4. Of 15,777 masters employed in public primary schools, 4,101 are head masters who have passed through a training college, 2,764 are untrained head masters, 1,564 are trained assistants, 3,887 assistants have passed the public service certificate examination, and the remainder (3,459) are untrained and unpassed assistants. The minimum pay of a trained teacher is Rs. 8 and that of an untrained assistant Rs. 7 a month. The maximum pay for masters of primary schools is Rs. 60.

The college lectures and the university examinations are open to girls as well as boys, but there are no separate girls' colleges. In 1881 1·2 per cent., in 1891 3·75 per cent., and in 1903–4 4·74 per cent. of the female population of school-going age actually attended schools. In 1903–4 about 79 per cent. of the total attendance was in special girls' schools, and 21 per cent. in boys' schools. Of the 68 secondary schools for girls, 57 belong to the 'aided' class, and are attended chiefly by Europeans and Eurasians. Government maintains two secondary girls' schools, and one is supported by the municipality of Kārwār. Of 867 primary girls' schools, 3 are maintained

ʏ Government, 400 by District or municipal boards, and 226 by Native States, while 223 are aided and 15 unaided. In primary chools girls are taught the ordinary vernacular standards, with the ddition of needlework. Early marriage and consequent withdrawal rom school is the chief obstacle to female education, which now xcites little active opposition. Some 200 women receive regular *anāna* teaching, which is of use chiefly as leading them to wish to end their own children to school. Missionary effort has been successful chiefly in providing for the education of famine orphans.

For the training of masters, Government maintains a training college, ith a three years' course, in each Division, and a normal school with two years' course at Dhulia, and aids a private training school at hmadnagar. Another training college is maintained by the States f Kāthiāwār at Rājkot. These 7 institutions trained 728 pupils in 903-4. Of the 12 training schools for mistresses, which had 239 upils in the same year, 3 are maintained by Government, 2 by District r municipal boards, and one by Native States, while 4 receive grants-n-aid from Government, and 2 are unaided. Medical schools maintained by Government at Hyderābād (for both males and females), hmadābād, and Poona trained 242 pupils in 1903-4, most of whom eek employment as Hospital Assistants. The Government Veterinary College in Bombay in 1903-4 produced 8 graduates who had been hrough a course of three years' study, and has lately opened a ernacular class, with a two years' course, for farriers.

Subordinates for the Public Works department are trained at the Poona College of Science and in the engineering class attached to he Nava Vidyālaya high school in Hyderābād. The former institu-on and the aided Victoria Jubilee Technical Institution in Bombay ave also classes for mechanical and electrical engineers. The Victoria nstitution likewise trains foremen for the Bombay cotton-mills. The Government School of Art at Bombay, which teaches both pictorial nd industrial arts, was attended by 437 students in 1903-4. Twenty-hree technical and industrial schools, chiefly teaching drawing and arpentry, instructed 1,809 pupils in 1903-4, while 5 agricultural nd commercial schools and classes had 201 pupils. The London Chamber of Commerce examination is held in Bombay under the uspices of Government.

Besides the public institutions mentioned above, there are 92 private chools for advanced teaching -64 which teach Arabic and Persian, 6 for Sanskrit, and 2 for other Oriental languages. The private lementary schools number 2,481, of which 1,315 teach the Korān, nd the remainder teach the ordinary vernaculars.

All schools for Europeans and Eurasians are classed as secondary, ut the standards in use in them cover both the primary and the

secondary stage. None are maintained by, but most receive aid from Government. In 1903–4 they numbered 41 with 3,585 pupils. Besides these, there are 4 normal schools with 34 pupils and one industrial school with 19 pupils. Europeans seldom appear either for the school final or for the University examination, except the medical course, but commonly seek employment on the railways, in the Telegraph department, or in business.

Certain Government scholarships are reserved for Muhammadans and other backward races, and other scholarships are given to Muhammadans only from the Kāzī Shahāb-ud-dīn Fund. Whereas in 1881 1·5 per cent. of the Hindu population and 1 per cent. of the Muhammadan population were in primary schools, in 1903–4 the ratios were 1·76 and 1·91 respectively. In 1881, 0·08 of the Hindu population and 0·02 of the Muhammadan population were in secondary schools, while in 1903–4 the proportions were 0·14 and 0·07 per cent. In 1881 one out of every 379,467 Hindus and no Muhammadan took a University degree, but in 1903–4 the ratios were one to 46,534 for Hindus and one to 240,384 for Muhammadans. The Muhammadans have a prejudice against secular education which has not yet been overcome, though the leaders of the community both in Sind and Bombay City are alive to the needs of the time and are doing their best to rouse their fellows to self-help.

The approximate monthly fees are: college, Rs. 25 to Rs. 75; high school, 10 annas to Rs. 5; middle school, 8 annas to Rs. 3; primary, 6 pies to 8 annas.

Whereas in 1881 only 10·2 per cent. of the population of school-going age were under instruction, the ratio rose to 15·45 in 1891 and 15·13 in 1903–4. In 1901, according to the Census results, 11·5 per cent. of the males and 0·9 per cent. of the females, or 6·4 per cent. of the whole population, were able to read and write, while 0·7 per cent. were literate in English. In both male and female education the Pārsīs lead the way and the Muhammadans hold the last place. Among Hindus the Vānīs stand first, the Prabhus second, and the Brāhmans third in general education; but in female education the Prabhus lead the way. Education is most general in Kāthiāwār and the adjoining Districts of Gujarāt, and at the lowest level in Eastern Sind.

The oldest native newspaper is the *Bombay Samāchār*, a Gujarātī daily of Bombay, which was founded in 1819. The oldest Marāthī paper is the *Dnyān Prakāsh* of Poona, started in 1849. In 1872–3 there were 4 English and 52 vernacular newspapers, all but one of which were published either in Gujarātī or Marāthī. In 1904 there were 45 English and 257 vernacular newspapers published in British territory, with an estimated circulation of about 280,000. Many of these papers are very short-lived, but new ones are constantly being

started. The largest circulation is claimed by the Marāthī *Kesari* of Poona, which is the organ of the extreme section of the Congress party. The most widely read Gujarātī papers are the *Bombay Samāchār* and the *Gujarātī*, which hold rather more moderate views. The *Rāst Goftār* is the chief anti-congress organ. The non-political organs number 136 and the political 166. The number of Muhammadan newspapers is 22. The annual publications of the local press number over 1,200, of which 1,100 are original works. They deal largely with religious and social topics, a few being devoted to poetry; the exact sciences are represented by a very small number of publications.

Medical.

The Medical department is controlled by a Surgeon-General, and sanitation is in charge of a Sanitary Commissioner, both officers being members of the Indian Medical Service. A Civil Surgeon stationed at each District head-quarters is responsible for the medical work of the District, while sanitation is entrusted to one of the Deputy-Sanitary Commissioners. The principal medical institutions of the Presidency are to be found in Bombay City. In 1784 there existed three large hospitals in that city: a European hospital in the Fort, a hospital for native troops on the Esplanade, and a convalescent home on Old Woman's Island. The first of these is now represented by the St. George's Hospital; the Jamsetjī Jījībhoy Hospital at Byculla is the successor of the second; and the Convalescent Home has been transferred to the cool heights of Khandāla on the Borghāt. St. George's, or the European General Hospital, dates from the seventeenth century, when 70 beds were established in temporary premises at the Old Court House. It was subsequently transferred to a building near the dockyard, accommodating 140 beds, and in April, 1892, the present building was completed and occupied. It contains 208 beds; and its present nursing staff consists of a lady superintendent, an assistant lady superintendent, 7 charge sisters including a night superintendent, 26 nurses, 7 probationers, a housekeeper and assistant housekeeper. The cost of erection was nearly 6 lakhs; and the annual cost amounts to about Rs. 39,000, of which Government provides one-half and the balance is made up by a contribution of Rs. 2,800 from the Port Trust and public subscriptions. The Jamsetjī Jījībhoy Hospital on Parel Road, to which is attached the Grant Medical College, was constructed in 1843 by the munificence of the first baronet of that name. The Cama Hospital for Females near the Victoria Terminus was opened in 1886, and the Allbless Obstetric Hospital in 1891. The Bai Motlibai Obstetric Hospital and the Sir Dinshaw Mānekji Petit Hospital for women and children were founded in 1892 by the widow of Naoroji Wadia and the late Sir Dinshaw Petit respectively, and are worked in connexion with the Jamsetjī Jījībhoy Hospital.

Well-equipped hospitals exist in all important up-country stations, of

which the best known is the Sassoon Hospital in Poona, furnished with a special nursing staff. Of the 665 hospitals and dispensaries in 1904 in the Presidency (including 13 in the outlying settlements of Aden and the Persian Gulf), 61 are institutions maintained and managed by Government, 247 are vested in District or municipal boards or guaranteed or maintained by Local or municipal funds with or without the aid of Government or private subscriptions, 305 are entirely maintained at the cost of private individuals or associations, 8 are supported by private subscriptions but receive aid from Government or Local funds, and 44 are railway dispensaries. Over four million persons, including about 67,000 in-patients, are treated at these institutions.

The Presidency contains 7 lunatic asylums, and a central asylum at Yeraoda near Poona is now under consideration. The inmates in 1904 numbered 1,295, the cause of insanity being physical in 496 cases and moral in 133. Excessive indulgence in narcotics and spirits accounted for 176 of these cases. There are 16 institutions in the Presidency for the detention and treatment of lepers, the chief of which is the Mātunga Asylum, Bombay City.

Vaccination is carried out by a large staff under the direction of the Sanitary Commissioner in all parts of the Presidency. It is not unlikely that intercourse with Europe led to the introduction of small-pox into India. In 1788 a Mr. Farmer inoculated about 1,300 old and young persons, of whom only 2 died of small-pox. Until 1827 no systematic attempt was made to enforce vaccination. Although primary vaccination is compulsory only in Bombay City, Kurla, Bāndra, Karāchi, Lārkāna, Sukkur, and Rohri towns, the process is voluntarily resorted to by numerous parents anxious to protect their children, with the result that out of a population of 21,539,199, 529,421 were successfully vaccinated in 1903–4, or 24.58 per 1,000. The expenditure on vaccination averages $2\frac{3}{4}$ lakhs per annum, equal to 8 annas 2 pies per head of those vaccinated. The average annual mortality from small-pox was 11,530 during the years 1875–80. and 4,312 during the five years ending 1903–4.

Medical aid of a simple description is available at all post offices in the form of packets of quinine sold at one pice each as a preventative of malarial fever. The use of this febrifuge is steadily gaining in popularity. Over 17,000 packets were thus distributed in 1903.

Outside Bombay and the few big cities where sanitation is provided by the employment of a duly qualified staff and the construction of expensive water and drainage works, the rural tracts know little of sanitation in its modern sense. An Act passed in 1889, known as the Village Sanitation Act, empowered local committees supported by voluntary contributions to take measures for improving the sanitary condition of the villages. This Act has been applied to 265 villages;

small towns may adopt similar measures of their own initiative when they are under municipal control. It would be difficult to assert that any marked improvement in conservancy has hitherto resulted from the initiative of municipalities or village committees; but improvements in the water-supply can certainly be claimed as a sign of advance in the case of many municipalities. More than this cannot be expected until the mass of the population have learned to connect the prevention of epidemic diseases with cleanly habits and a due regard for the sources of the drinking-water supply, instead of attributing them to the actions of malevolent deities who are to be propitiated by offerings and penances. In 1892 a Sanitary Board, which is now under the presidency of the Surgeon-General, was constituted to advise local bodies on measures for improving local sanitation. For ordinary administrative purposes the Sanitary Commissioner is assisted by five Deputy-Sanitary Commissioners and one Vaccination Superintendent, who are placed in charge of an equal number of circles, and are entrusted with the supervision of vaccination as well as of all sanitary measures. The Superintendent of Vaccination for the Presidency circle works only in Bombay City.

Surveys.

The topographical survey of the Presidency, conducted by parties under the orders of the Government of India, commenced in the cold season of 1866. By 1904, nearly the whole of the Presidency had been mapped, and maps are obtainable on 1, 2, 4, and 8 inch scales.

Revenue or cadastral surveys, undertaken as a basis for land assessment, date from the reign of Akbar, in whose time over 7,000,000 acres in Gujarāt were measured in connexion with the revenue system of Todar Mal (1575). In the time of Shāh Jahān this survey was extended to the Deccan. The first survey for which records are available is that undertaken by the Bijāpur Sultāns at the end of the sixteenth century. This survey formed the basis of revenue assessments till 1817, though the original measurements were partly revised by Sivajī as the country passed under the sway of the Marāthās. In 1835 the systematic survey of the land for revenue purposes was commenced by the Bombay Government and continued till 1901. Every field separately shown in the revenue accounts was entered in the maps prepared by the Survey department, each map recording the lands of one village. These maps form a permanent record of the land of the Presidency, subject to such periodic revision as is required by the construction of roads and railways, the extension of village sites, the erection of new dwelling-places, and the like. For this work of revision the village officers are being gradually instructed in the art of cadastral measurement under the trained supervision of the inspectors of the Agricultural department, the special survey department having been abolished on the completion of the settlement work entrusted to it.

Eventually it is intended that the village officers, on whom the duty falls of entering duly authorized corrections in the village records of tenure and rights, should follow the corrected entry by a corresponding correction of the village map, thus relieving the Agricultural inspectors of the work of keeping these maps up to date.

Lands under the control of the Forest department are specially demarcated and mapped at the time of forest settlement operations, when the decision is arrived at regarding their retention in or exclusion from forest. Maps of certain valuable Government forest lands are prepared on a scale of 8 inches to the mile. About 3,084 square miles in the Central circle had been mapped in this manner up to 1903-4.

Sir J. M. Campbell: *Bombay District Gazetteers* (Bombay, 1877-1901).—Grant Duff: *History of the Mahrattas*, 3 vols. (1826).—James Forbes: *Oriental Memoirs*, 4 vols. (1813).—M. G. Ranade: *Rise of the Maratha Power* (Bombay, 1900).—A. K. Forbes: *Rās Mālā*, 2 vols. (1856).—J. S. Cotton: *Mountstuart Elphinstone* (Oxford, 1892).—*Reports on the Census of Bombay*, 1872, 1881, 1891, and 1901. —*Reports on Famine in Bombay*, 1896-7 and 1900-2.—Official Monographs on *Brass-working*, *Pottery and Glass-making*, *Dyes and Dyeing*, *Cotton Fabrics*, *Silk Fabrics*, *Woollen Fabrics*, *Leather-working*, *Wood-carving*, *Ivory-carving*, *Stone-carving*, *Gold and Silver-working*.—*Statistical Atlas*, *Bombay Presidency* (second edition, 1906).

District or State.	Area in square miles.	Number of towns.	Number of villages.	Total Population. Persons.	Total Population. Males.	Total Population. Females.	Urban Population. Persons.	Urban Population. Males.	Urban Population. Females.	Persons per square mile in rural areas.
Bombay City	22	1	...	776,006*	479,786	296,220	776,006	479,786	296,220	...
Ahmadābād	3,816	12	862	795,967	408,059	387,908	281,572	144,075	137,497	135
Broach	1,467	5	405	291,763	148,528	143,235	71,602	36,780	34,822	150
Kaira	1,595	11	598	716,332	375,647	340,685	132,073	68,006	64,067	366
Pānch Mahāls	1,606	4	689	261,020	132,047	128,973	45,268	22,766	22,502	134
Surat	1,653	8	770	637,017	317,787	319,230	165,153	84,092	81,061	280
Thāna	3,573	7	1,626	811,433	422,192	389,241	90,421	48,901	41,520	202
Total, Northern Division	13,710	47	4,950	3,513,532	1,804,260	1,709,272	786,089	404,620	381,469	199
Ahmadnagar	6,586	8	1,341	837,695	417,768	419,927	91,280	45,955	45,325	113
Khāndesh †	10,041	31	2,614	1,427,382	721,888	705,494	290,317	147,079	143,238	113
Nāsik	5,850	10	1,639	816,504	413,386	403,118	96,742	49,567	47,175	123
Poona	5,349	11	1,178	995,330	502,685	492,645	220,113	114,352	105,761	146
Sātāra	4,825	8	1,335	1,146,559	569,083	577,476	98,760	49,673	49,087	218
Sholāpur	4,541	7	712	720,977	362,777	358,200	154,733	79,170	75,563	125
Total, Central Division	37,192	75	8,819	5,944,447	2,987,587	2,956,860	951,945	485,796	466,149	134
Belgaum	4,649	6	1,070	993,976	502,473	491,503	83,558	42,876	40,682	196
Bijāpur	5,669	5	1,113	735,435	368,023	367,412	75,246	37,647	37,599	116
Dhārwār	4,602	16	1,286	1,113,298	560,947	552,351	225,601	113,807	111,794	193
Kanara	3,945	8	1,281	454,490	236,047	218,443	57,771	29,164	28,607	101
Kolāba	2,131	8	1,476	605,566	304,441	301,125	61,840	32,315	29,525	256
Ratnāgiri	3,998	7	1,301	1,167,927	547,525	620,402	76,914	38,160	38,754	273
Total, Southern Division	24,994	50	7,527	5,070,692	2,519,456	2,551,236	580,930	293,969	286,961	179
Karāchi	11,970	5	628	446,513	248,816	197,697	140,052	80,715	59,337	26
Hyderābād	8,291	7	1,405	989,030	544,420	444,610	103,105	54,862	48,243	106
Lārkāna	5,091	5	708	656,083	354,103	301,980	32,175	17,505	14,670	125
Sukkur	5,403	5	606	523,345	281,847	241,498	100,719	54,414	46,305	78
Thar and Pārkar	13,690	3	666	363,894	202,727	161,167	10,517	5,701	4,816	26
Upper Sind Frontier	2,621	1	390	232,045	129,877	102,168	10,787	6,547	4,240	84
Total Sind	47,066	26	4,403	3,210,910	1,761,790	1,449,120	397,355	219,744	177,611	51
Total British Districts	122,984	199	25,699	18,515,587	9,552,879	8,962,708	3,492,325	1,883,915	1,608,410	122

* According to a special census in 1906 the total population of Bombay City was 977,822, composed of 613,011 males and 364,811 females.
† In 1906 Khāndesh was divided into the two Districts of East and West Khāndesh.

TABLE I. DISTRIBUTION OF POPULATION, BOMBAY PRESIDENCY, 1901 (*continued*)

District or State.	Area in square miles.	Number of towns.	Number of villages.	Total Population.			Urban Population.			Persons per square mile in rural areas.
				Persons.	Males.	Females.	Persons.	Males.	Females.	
Cambay	350	2	88	75,225	38,616	36,609	36,218	18,110	18,108	111
Cutch	7,616	8	937	488,022	244,643	243,379	98,686	49,428	49,258	51
Kāthiāwār	20,882	52	4,163	2,329,196	1,187,901	1,141,295	608,851	306,428	302,423	82
Mahī Kāntha	3,528	6	1,723	361,545	182,368	179,177	31,725	15,796	15,929	94
Pālanpur	8,000	3	1,188	467,271	242,697	224,574	40,725	21,211	19,514	53
Rewā Kāntha	4,980	6	2,817	479,065	245,205	233,860	40,195	19,499	20,696	88
Surat Agency	1,051	2	375	161,342	82,256	79,086	10,104	5,039	5,065	144
Total, Gujarāt Group	46,407	79	11,291	4,361,666	2,223,686	2,137,980	866,504	435,511	430,993	75
Janjīra	324	2	232	85,414	41,251	44,163	9,514	4,736	4,778	234
Jawhār	310	1	106	47,538	24,552	22,986	3,567	1,935	1,632	142
Sāvantvādi	926	1	226	217,732	106,077	111,655	10,213	4,981	5,232	224
Total, Konkan Group	1,560	4	564	350,684	171,880	178,804	23,294	11,652	11,642	209
Akalkot	498	1	102	82,047	41,533	40,514	8,348	4,196	4,152	148
Bhor	1,491	1	483	137,268	69,193	68,075	4,178	2,122	2,056	89
Khāndesh Agency *	1,623	...	426	33,272	17,201	16,071	...	...	...	20
Sātāra Agency	844	1	142	109,660	54,864	54,796	9,512	4,670	4,842	119
Surgāna	360	...	56	11,532	6,061	5,471	...	...	...	32
Total, Deccan Group	4,816	3	1,200	373,779	188,852	184,927	22,038	10,988	11,050	73
Kolhāpur	2,855	9	1,056	910,011	460,874	449,137	109,047	55,763	53,284	280
Southern Marāthā Jāgirs †	4,003	32	700	694,749	349,687	345,062	207,287	104,186	103,101	122
Savanūr	70	1	22	18,446	9,258	9,188	9,796	4,822	4,974	123
Total, Carnatic Group	6,928	42	1,778	1,623,206	819,819	803,387	326,130	164,771	161,359	187
Khairpur	6,050	1	153	199,313	108,766	90,547	14,014	7,346	6,668	31
Total, Native States and Agencies	65,761	129	14,995	6,908,648	3,513,003	3,395,645	1,251,980	630,268	621,712	86
Bombay Presidency, including Native States	188,745	328	40,694	25,424,235	13,065,882	12,358,353	4,744,305	2,514,183	2,230,122	110
Aden	80	3	...	43,974	30,530	13,444	43,974	30,530	13,444	...

* Includes the Dāngs States, with a population of 18,663, now in Surat Agency.
† Includes the Jath and Daflāpur, with a population of 68,665, now forming an Agency of Bijāpur.

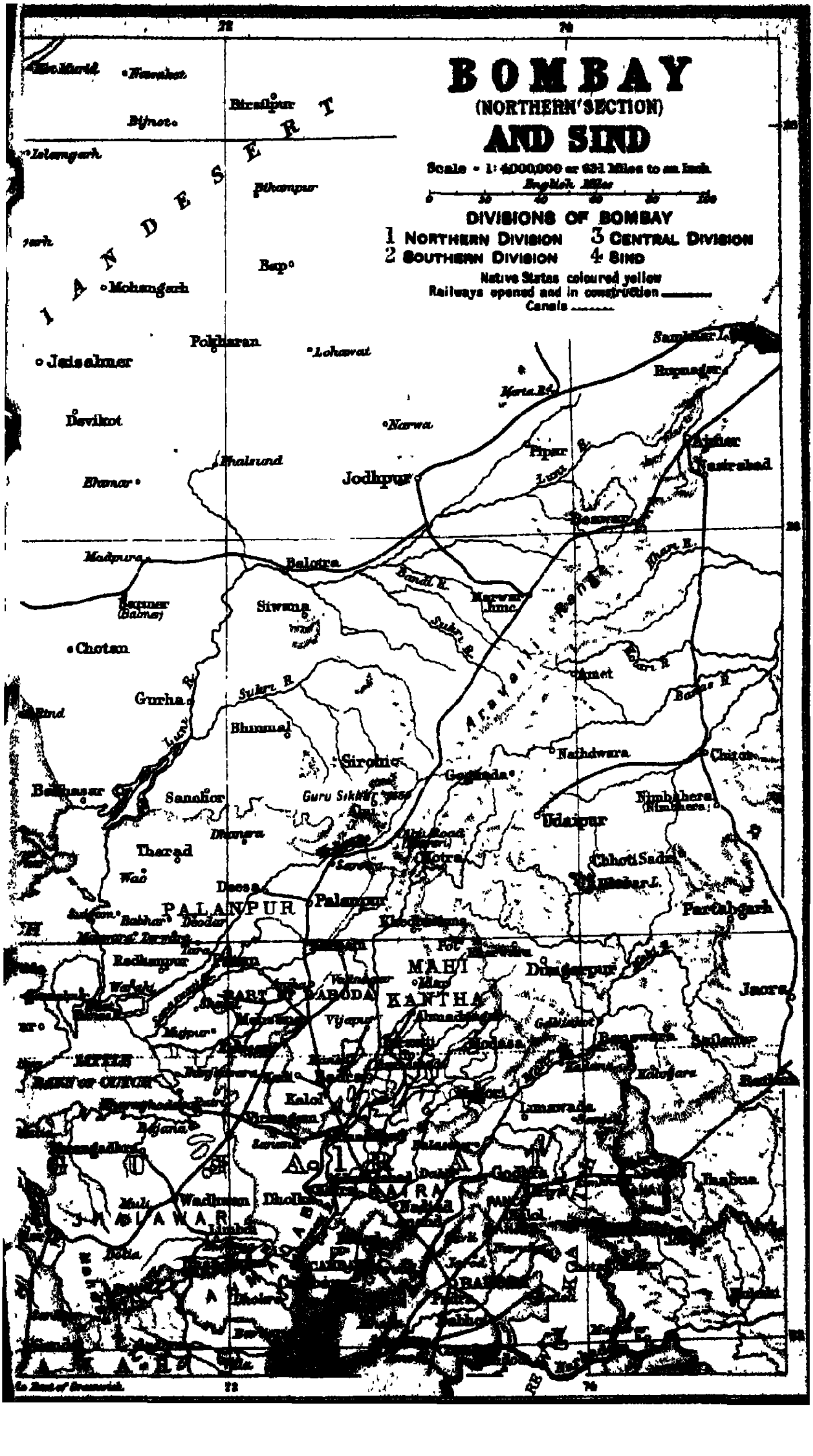

BOMBAY
(NORTHERN SECTION)
AND SIND
Scale - 1: 4000000
English Miles
DIVISIONS OF BOMBAY
1 Northern Division
3 Central Division
2 Southern Division
4 Sind
Native States coloured yellow
Railways opened and in construction
Canals
Bikampur
Mohangarh
Jaisalmer
Pokharan
Lohavat
Devikot
Narwa
Jodhpur
Balotra
Siwana
Chotan
Gurha
Bhinmal
Sirohi
Sanchor
Tharad
Deesa
Palanpur
PALANPUR
Radhanpur
MAHI
KANTHA
Kalol
Udaipur
Nathdwara
Chhoti Sadri
Partabgarh
Nimbahera
Jaora
Thabua
Lunawada
Godhra
Wadhwan
Dholka
Limbdi
Dholera
Aravalli
Ajmer
Nasirabad
Sambhar L.
Guru Sikhar
Sukri R.
Luni R.
Bandi R.
Barmer
Ahmednagar
Modasa
Dungarpur
Banswara
Gaddada

TABLE II

STATISTICS OF AGRICULTURE IN THE BOMBAY PRESIDENCY, EXCLUDING NATIVE STATES

(In square miles)

	Presidency Proper.				Sind.			
	1881.	1891.	1901.	1904.	1881.	1891.	1901.	1904.
Total area	Not available.	68,517	68,130	68,475	Not available.	38,158	46,983	41,908
Total uncultivated area		21,995	21,289	21,320		28,209	34,482	33,856
Cultivable but not cultivated		3,419	2,232	2,220		8,127	10,420	10,265
Uncultivable		8,126	7,834	7,825		19,138	22,860	22,593
Forest		10,450	11,221	11,275		944	1,202	1,048
Total cultivated area	33,971	46,522	46,843	47,155	4,539	9,949	12,501	13,052
(*a*) Actually cropped	28,393	39,114	32,813	36,728	2,821	4,507	5,827	5,932
Irrigated from canals	Not available.	173	191	167	Not available.	3,148	4,574	4,738
" from wells and tanks		1,049	882	794		765	22	29
" from other sources			131	139			204	333
Total irrigated		1,222	1,204	1,100		3,913	4,800	5,100
Unirrigated		37,892	31,609	35,628		594	1,027	832
(*b*) Current fallows	6,578	7,408	14,030	10,427	1,718	5,442	6,674	7,120
Total cropped area	28,970	39,[illegible]66	33,512	37,782	2,946	4,879	6,282	6,444
Cereals :—								
Jowār	8,888	13,003	9,051	9,512	562	722	1,259	1,051
Bājra	5,249	6,952	8,951	7,549	697	1,171	1,401	1,478
Rice	1,900	2,486	2,289	2,444	846	1,103	1,448	1,381
Wheat	2,113	2,989	1,485	2,429	356	634	706	858
Kodra or *harik*	933	395	274	346	...	...	...	...
Nāchnī, *nāgli* or *rāgi*	1,323	1,066	797	759	4	2	2	1
Others	1,353	1,289	1,174	1,158	89	42	30	38
Pulses :—								
Tūr	489	819	939	951	...	...	...	...
Gram	848	1,100	501	886	31	43	138	130
Others	1,056	1,664	2,065	2,613	126	244	327	400
Tobacco	76	151	104	113	10	13	13	13
Sugar-cane	76	99	60	89	4	4	4	4
Oilseeds (not forest) —								
Sesamum (*til*)	449	346	496	795	115	135	156	182
Linseed	238	326	215	566	...	...	...	...
Other oilseeds	895	1,806	848	1,287	...	431	497	457
Fibres :—								
Cotton	2,702	4,769	3,571	5,581	75	164	130	324
Other fibres	76	136	153	237	...	1	1	1
Orchard and garden produce	110	264	257	207	25	81	72	64
Condiments and spices	171	294	272	253	...	72	18	8
Dyes (not forest)	14	8	5	3	6	15	16	9
Drugs and narcotics other than tobacco	10	2	2	1	...	...	...	...
Miscellaneous	1	2	3	3	...	2	64	45
Area cropped more than once	577	852	699	1,054	125	372	455	512

TABLE III. PRICES OF CHIEF GRAINS IN THE BOMBAY PRESIDENCY AT SIX SELECTED CENTRES

(In seers per rupee)

Selected staples.	Names of selected centres.	Average for ten years ending 1880.	1890.	1900.
Bājra	Hyderābād	Not available.	17	16
	Ahmadābād	17	17	15
	Bombay City	14	15	13
	Poona	15	16	14
	Dhārwār	19	23	19
	Kārwār	14	15	13
Jowār	Hyderābād	Not available.	20	17
	Ahmadābād	19	19	17
	Bombay City	17	18	14
	Poona	19	20	17
	Dhārwār	22	26	20
	Kārwār	14	18	14
Rice, common	Hyderābād	Not available.	14	9
	Ahmadābād	10	11	10
	Bombay City	11	11	10
	Poona	10	10	10
	Dhārwār	13	13	11
	Kārwār	12	13	10
Gram	Hyderābād	Not available.	16	14
	Ahmadābād	16	18	16
	Bombay City	14	16	12
	Poona	14	16	13
	Dhārwār	12	16	12
	Kārwār	11	14	11

NOTE.—Figures for Hyderābād are not available for the years previous to 1885. Acute famine years, such as 1877 and 1900, have been omitted from these averages.

TABLE IV. FOREIGN MARITIME TRADE OF BOMBAY PRESIDENCY FOR THE YEARS 1890-1, 1900-1, AND 1903-4 (EXCLUSIVE OF GOVERNMENT STORES AND TREASURE)

(In thousands of rupees)

Articles.	1890-1.	1900-1.	1903-4.
Imports.			
Animals, living	14,50	18,33	28,21
Apparel	53,10	61,11	88,16
Books and printed matter	9,31	11,87	14,32
Carriages and carts (excluding railway carriages and parts thereof)	*	11,23	19,84
Chemical products and preparations	*	18,53	24,42
Coal and coke	1,31,68	22,51	30,57
Cotton, raw	19,46	66,88	4,78
" twist and yarn	1,28,52	50,29	54,00
" manufactures	10,31,10	8,45,33	10,09,59
Drugs and medicines	22,73	26,14	42,39
Dyeing and colouring materials	42,81	49,42	77,05
Glass and glassware	35,15	36,37	52,43
Grain and pulse	*	84,21	5,32

* Not registered.

TABLE IV (*continued*)

Articles.	1890-1.	1900-1.	1903-4.
Matches	12,72	16,77	20,00
Metals and manufactures thereof, including hardware and cutlery	3,10,19	2,72,47	4,27,35
Ivory, including manufactures thereof	34,65	16,77	20,54
Instruments and apparatus of all kinds	12,00	18,40	27,19
Jewellery, including precious stones unset and parts	18,65	50,72	62,47
Liquors	53,11	63,50	73,13
Machinery and mill-work	96,24	77,08	1,36,89
Oils	86,32	1,46,48	1,37,85
Paints and colours and painters' materials	14,47	16,61	18,06
Paper and pasteboard	23,21	24,49	27,65
Provisions	76,18	1,04,25	1,00,29
Railway plant and rolling stock	1,14,04	48,14	46,62
Silk, raw	87,02	85,99	49,65
,, manufactures	67,29	82,77	1,17,46
Spices	27,91	19,57	26,73
Stationery	*	14,65	20,26
Sugar	2,52,81	3,71,41	3,59,28
Tea	31,01	22,78	18,18
Umbrellas	10,35	10,90	11,31
Wood and manufactures thereof	6,89	18,92	32,34
Woollen manufactures	77,47	85,97	1,06,56
All other articles of merchandise	2,23,66	2,20,73	2,49,16
Total	31,24,55	30,91,59	35,40,05
Treasure	17,66,65	9,79,44	18,14,01
Exports.			
Animal bones	*	49,20	24,37
Apparel	4,79	22,22	24,38
Cotton, raw	13,22,33	7,93,19	20,81,49
,, twist and yarn	6,21,79	4,07,32	8,35,70
,, manufactures	2,36,94	1,72,64	2,04,52
Dyeing and tanning materials	12,78	49,58	48,84
Grain and pulse	6,35,21	85,52	11,22,41
Gums and resins	6,05	13,19	15,00
Hemp	2,27	20,71	27,77
Hides and skins, raw	4,39	1,07,85	48,00
,, ,, dressed or tanned	51,67	1,00,65	65,58
Horns	*	10,45	6,95
Metals and manufactures thereof	8,00	42,09	52,39
Oils	3,50	15,29	15,51
Oilseeds	5,01,03	4,55,64	8,59,46
Opium	3,28,19	3,33,30	3,42,94
Provisions	38,50	33,70	37,62
Spices	9,40	16,49	25,76
Sugar	22,77	11,17	6,26
Tea	9,75	28,21	22,26
Wool, raw	92,91	1,15,12	1,54,97
Woollen manufactures	4,54	18,10	13,82
All other articles of merchandise	3,39,11	1,46,72	1,67,65
Total	42,55,92	30,48,35	62,03,55
Treasure	1,70,77	6,53,57	5,38,99

* Not registered.

TABLE V

TRADE OF THE BOMBAY PRESIDENCY WITH OTHER PROVINCES AND STATES OF INDIA FOR 1890–1, 1900–1, AND 1903–4

(In thousands of rupees)

	By sea (exclusive of Government stores and treasure).			By road and rail.		
	1890–1.	1900–1.	1903–4.	1890–1.	1900–1.	1903–4.
Imports.						
Animals, living	1	8	3	2,36	35,68	7,39
Apparel	50	52	38	*	23,92	26,50
Coal and coke	52	1,05,28	88,85	13,73	44,72	31,95
Coco-nuts, coco-nut copra	49,50	56,62	58,71	*	...	...
Cotton, raw	2,95	7,47	2,97	6,74,12	7,36,93	14,16,10
„ piece-goods	1,63	2,93	2,03	37,29	27,90	37,64
„ twist and yarn	1,26	28	5	2,86	1,73	1,95
Drugs and medicines	14	1,64	1,76	6,97	15,21	12,33
Dyes and tans	6,67	4,29	1,25	30,10	37,00	29,18
Grain and pulse	1,15,98	6,82,40	1,53,62	4,29,27	5,97,64	8,82,40
Hay, straw, and grass	*	2,21	1,76	*	12,77	5,25
Hemp	4	...	15	*	12,95	14,21
Hides and skins (raw and dressed)	68	65	1,22	15,08	55,45	43,98
Jute and manufactures thereof	67,30	60,69	71,40	3,43	4,39	13,39
Leather, including wrought	10	1	...	6,49	18,39	26,73
Metals and manufactures thereof	1,81	54	1,04	6,93	2,66,29	31,64
Oils	16,32	27,55	32,44	2,22	8,96	11,07
Oilseeds	4,93	6,57	1,03	3,04,21	3,94,66	5,84,23
Opium	...	...	...	1,64,97	2,24,18	2,32,00
Provisions	3,20	4,90	4,25	92,13	1,85,98	82,34
Railway plant and rolling stock	*	4	...	9,06	11,57	11,60
Spices	29,23	39,23	48,29	29,64	40,62	39,52
Sugar	11,80	2,47	2,37	68,69	77,71	45,24
Tea	4,32	16,66	15,15	3,71	5,57	9,36
Tobacco	2,80	1,02	62	5,37	11,58	4,06
Wood and manufactures thereof	34,94	36,01	30,23	*	8,68	15,67
Wool and manufactures thereof	53	58	26	43,25	68,74	71,37
All other articles of merchandise	43,82	28,96	27,44	67,96	82,30	77,77
Total	4,00,98	10,89,60	5,47,30	20,20,74	30,10,52	37,64,87
Treasure	27	33	...	*	3,36,32	5,16,91
Exports						
Apparel	4,01	4,00	3,05	*	26,79	43,16
Cotton, raw	39,11	15,04	8,18	12,43	18,84	17,06
„ piece-goods	68,00	98,98	1,01,63	4,68,71	5,46,73	7,25,44
„ twist and yarn	89,13	1,01,89	76,80	1,07,41	1,63,54	2,56,87
Dyes and tans	3,49	4,63	4,57	35,24	35,46	47,81
Grain and pulse	16,00	39,44	45,09	12,53	1,39,82	46,31
Hides and skins	1,15	1,26	1,60	17,07	45,28	26,42
Jute and manufactures thereof	82	1,43	1,03	25,13	23,64	29,14
Leather	1	24	48	13,76	30,40	59,31
Liquor	1,05	2,07	1,85	53,67	54,45	61,92
Metals and manufactures thereof	21,06	31,25	20,65	1,50,45	2,46,18	4,00,31
Oils	57	16,66	14,89	40,52	61,51	62,61
Provisions	7,52	12,99	14,90	91,06	1,11,30	1,28,26
Railway plant and rolling stock		8	...	79,40	94,47	1,12,32
Salt	62,38	56,04	37,30	1,04,31	1,41,79	1,26,43
Silk, raw	5	45	14	16,94	23,69	33,13
„ piece-goods	2,55	4,25	2,13	5,63	17,11	17,61
Spices	3,99	6,26	6,91	40,14	48,13	56,86
Sugar	2,69	4,58	5,36	71,90	2,11,15	2,53,18
Tobacco	1,12	67	..	51,70	25,89	25,52
Wool and manufactures thereof	5,23	1,71	1,62	13,56	27,27	29,16
Other articles of merchandise	53,80	54,68	55,12	81,75	1,09,15	1,82,42
Total	3,83,72	4,58,60	4,03,30	14,93,31	22,02,59	27,48,25
Treasure	4,74	2,70	5,73	*	8,92,59	7,57,61

Not registered.

TABLE VI

PRINCIPAL SOURCES OF PROVINCIAL REVENUE IN THE BOMBAY PRESIDENCY

(In thousands of rupees)

Sources of revenue.	Average for ten years ending March 31, 1890.		Average for ten years ending March 31, 1900.		Year ending March 31, 1901.		Year ending March 31, 1904.	
	Total amount raised (Imperial, Provincial, and Local).	Amount credited to Provincial revenues.	Total amount raised (Imperial, Provincial, and Local).	Amount credited to Provincial revenues.	Total amount raised (Imperial, Provincial, and Local).	Amount credited to Provincial revenues.	Total amount raised (Imperial, Provincial, and Local).	Amount credited to Provincial revenues.
Partly Imperial and partly Provincial.								
Land revenue	4,06,13	2,57,93	4,50,99	2,74,57	3,92,34	3,14,76	4,75,54	3,12,33
Stamps	45,65	30,79	57,44	43,08	58,87	44,15	61,48	46,11
Excise	82,56	40,03	1,07,89	26,97	1,01,31	25,33	1,19,99	30,00
Provincial rates	...	...	...	...	...	...	34,04	...
Assessed taxes	20,97	8,75	37,21	17,80	37,28	18,10	36,32	17,89
Forest	22,79	11,39	31,28	15,64	29,62	14,81	27,52	13,76
Registration	3,71	2,13	5,97	2,99	6,10	3,05	5,54	2,77
Other sources	49,07	25,88	58,31	29,16	49,18	26,41	58,34	30,81
Total	6,30,88	3,76,90	7,49,09	4,10,21	6,74,70	4,46,61	8,18,77	4,53,67
Mainly Imperial.								
Salt	1,63,03	49	2,28,34	57	2,33,89	74	1,86,59	1,03
Customs	33,24	57	1,23,94	74	1,93,59	1,09	2,35,56	94
Interest on cesses to local bodies	20,36	86	18,92	3,13	17,57	3,44	28,84	5,74
Irrigation	*1,45	1	16,95	24	23,57	32	†31,04	48
State railway gross receipts	...	...	‡51,11	1,37	...	...	...	...

* From 1889–90 only. † Does not include portion of Land Revenue due to Irrigation.
‡ Shared with Provincial Government from 1892–3 to 1899–1900 only.

TABLE VII

Principal Heads of Provincial Expenditure in the Bombay Presidency

(In thousands of rupees)

	Average for ten years ending March 31, 1890.	Average for ten years ending March 31, 1900.	Year ending March 31, 1901.	Year ending March 31, 1904
Opening balance	11,01* 43,99†	58,41 48,73	...	34,00
Charges in respect of collection (principally Land Revenue and Forests)	86,76	78,21	82,66	76,82
Salaries and expenses of Civil Department:—				
(a) General administration	12,48	14,27	15,27	15,82
(b) Law and justice	50,59	52,07	57,38	55,03
(c) Police	46,93	56,86	65,09	63,43
(d) Education	13,01	17,05	17,31	19,81
(e) Medical	12,46	21,82	31,94	19,53
(f) Other heads	3,74	5,72	6,67	6,36
Pensions and miscellaneous civil charges	20,58	27,52	34,04	44,33
Famine relief	6	50	...	2
Irrigation	26	60	14	13
Public works	36,50	32,90	27,29	14
Other charges and adjustments	90,81	1,14,65	1,14,41	1,61,67
Total expenditure	3,74,18	4,22,12	4,52,20	4,63,09
Closing balance	58,41‡ 48,73§	27,34	...	32,77

* Actual at commencement of each period. † Average.
‡ Actual at close of each period. § Average.

TABLE VIII

ANNUAL GROSS YIELD OF IMPORT DUTIES ON THE CHIEF ARTICLES IMPORTED INTO THE BOMBAY PRESIDENCY (EXCLUDING SIND) FROM 1894–5 TO 1902–3

Chief articles.	Amount of duty collected in									
	1894-5.	1895-6.	1896-7.	1897-8.	1898-9.	1899-1900.	1900-1.	1901-2.	1902-3.	1903-4.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Liquors . .	18,23,842	19.90.497	19,45,711	19,84,944	21,76,250	21,92,813	21,46,222	22,01,281	22,73,939	24,28,294
Fruits and vegetables . .	2,54,354	2,45,682	1,91,045	2,19,963	1,78,067	2,31,673	2,57,805	2,52,850	1,92,333	2,68,658
Sugar . . .	8,78,258	8,85,118	8,75,618	12,26,152	10,95,858	9,34,680	18,20,726	22,52,151	18,03,456	12,88,438
Dyeing materials .	2,69,017	3,50,645	3,07,163	3,37,794	3,58,035	2,85,887	2,57,876	3,11,222	3,04,926	3,88,162
Hardware and cutlery . .	3,18,044	3,03,833	3,23,280	2,40,461	2,49,921	2,99,950	3,08,551	3,05,338	3,64,766	4,02,460
Oils . . .	11,63,276	8,41,668	12,97,787	19,48,665	16,72,790	9,88,012	16,05,975	16,82,807	18,91,143	15,34,818
Apparel . .	2,97,263	3,12,031	2,93,610	1,78,910	2,22,117	2,43,829	2,38,238	2,71,476	3,16,165	3,36,959
Cotton goods .	12,28,363	31,80,416	25,31,445	21,47,932	23,59,105	26,10,665	23,34,855	30,05,019	24,09,692	27,89,164
Silk . . .	9,59,383	10,69,095	8,62,406	6,72,563	7,34,346	6,19,861	9,22,310	8,57,731	7,84,290	8,18,314
Woollen goods .	3,16,673	3,49,795	3,56,092	1,78,503	2,45,807	3,12,908	3,63,447	4,16,133	3,05,930	4,34,115
All other articles .	62,61,639	68,08,642	56,37,093	61,78,456	50,60,718	40.86,166	36,92,877	52,53,892	67,63,013	70,65,297
Total gross import duty .	1,37,70,112	1,63,37,422	1,46,21,250	1,53,14,343	1,43,53,014	1,28,06,444	1,39,48,882	1,68,09,900	1,74,09,653	1,77,54,679

TABLE IX. INCOME AND EXPENDITURE OF BOMBAY DISTRICT MUNICIPALITIES

	Average for ten years 1891-1900.	1900-1.	1903-4.
	Rs.	Rs.	Rs.
Income from—			
Octroi (gross)	21,64,370	22,89,129	26,96,049
Tax on houses and land	5,48,917	6,56,386	7,05,213
Other taxes	8,76,951	10,39,088	13,32,431
Rents	77,963	81,971	94,677
Loans	5,20,259	2,13,607	99,173
Other sources	17,27,022	16,51,565	21,76,572
Total income	59,15,482	59,31,746	71,04,115
Expenditure on—			
Administration	4,55,343	5,30,920	5,52,938
Public safety	2,46,634	2,44,655	2,50,372
Water supply and drainage—			
(a) Capital	4,98,329	1,33,621	4,15,822
(b) Maintenance	2,78,564	3,01,747	3,36,865
Conservancy	8,85,152	9,92,140	10,02,791
Hospitals and dispensaries	2,73,854	3,22,747	3,10,099
Public works	5,21,983	4,44,283	7,27,353
Education	6,76,026	7,01,998	7,99,723
Refunds (octroi)	7,22,683	7,00,196	8,63,013
Miscellaneous	14,83,770	16,94,527	15,46,015
Total expenditure	60,42,338	60,66,834	68,04,991

NOTE.—The Bombay City municipality had an income in 1903-4, including extraordinary, of about 4 crores of rupees.

TABLE X

INCOME AND EXPENDITURE OF BOMBAY DISTRICT BOARDS

	Average for ten years 1891-1900.	1900-1.	1903-4.
	Rs.	Rs.	Rs.
Income from—			
Provincial rates	25,81,731	22,55,505	29,27,456
Education	2,10,896	1,30,262	1,31,258
Medical	24,661	12,622	16,017
Public works	1,09,757	63,278	68,296
Contributions	9,79,651	10,53,069	10,92,841
Pounds	1,60,884	84,187	1,01,885
Ferries and roads	4,00,617	3,87,158	4,03,581
Other sources	82,343	98,792	58,823
Total income	45,50,540	40,84,873	48,00,157
Expenditure on—			
Administration	1,39,735	1,45,490	1,52,234
Education	14,99,736	15,12,908	16,03,777
Medical	3,02,042	3,33,825	2,94,947
Public works	23,85,032	17,09,964	22,39,613
Contributions	95,534	84,381	1,16,724
Miscellaneous	2,77,944	2,76,370	1,73,818
Total expenditure	47,00,023	40,62,938	45,81,113

TABLE XI. Police Statistics in the Bombay Presidency (British Districts)

	1881.	1891.	1901.	1904.
Supervising Staff.				
District and Assistant Superintendents	39	45	52	52
Inspectors	78	92	102	109
Subordinate Staff.				
Sub-Inspectors	3,110 (with Head constables)	3,675 (with Head constables)	397	408
Head constables			4,347	4,396
Constables	17,082	18,820	19,367	19,540
Municipal police*:—				
Officers	184†	20	51	49
Men	1,256†	148	286	282
Expenditure . Rs.	37,31,421	41,71,188	51,52,714	53,04,097

* Figures under this head include cantonment and water police, who are paid wholly from other than Imperial and Provincial revenues. † Including 137 railway officers and 879 men.

TABLE XII. Statistics of Cognizable Crime in the Bombay Presidency (British Districts)

Particulars.	Average for five years ending 1901.	Actual in 1904.
Number of cases reported	78,920	90,511
,, ,, decided in the criminal courts	55,244	68,620
,, ,, ending in acquittal or discharge	8,560	7,736
,, ,, ,, conviction	47,508	60,884

TABLE XIII. Jail Statistics in the Bombay Presidency (British Districts)

	1881.	1891.	1901.	1904.
Number of Central jails	1	1	3	3
Number of District jails	26	20	14	14
Number of Subsidiary jails (lock-ups)	78*	27*	238	238
Average daily jail population:—				
(*a*) Male:				
In Central jails	1,280	1,085†	4,057†	3,007
In other jails	8,117	6,467†	7,531†	5,764
(*b*) Female:				
In Central jails	...	24†	109†	98
In other jails	449	223†	290†	189
Total	9,846	7,799	11,987	9,058
Rate of jail mortality per 1,000	42	32	35	20
Expenditure on jail maintenance‡ . Rs.	6,12,000	5,24,000	8,48,000	6,13,000
Cost per prisoner . Rs.	62	67	71	68
Profits on jail manufactures Rs.	2,04,000	1,46,000	1,08,000	2,09,000
Earnings per prisoner . Rs.	21	19	9	23

* This excludes numerous lock-ups, details of which are not available.

† The figures for 1891 and 1901 include the average number of prisoners confined in lock-ups. ‡ [illegible]

TABLE XIV. Colleges, Schools, and Scholars in the Bombay Presidency

Class of institutions.		1890-1. Number of institutions.	1890-1. Scholars. Males.	1890-1. Scholars. Females.	1900-1. Number of institutions.	1900-1. Scholars. Males.	1900-1. Scholars. Females.	1903-4. Number of institutions.	1903-4. Scholars. Males.	1903-4. Scholars. Females.
Public.										
Arts colleges	British Districts	7	1,201	8	7	1,671	22	7	1,870	34
" "	Native States	2	80	...	2	132	1	3	234	...
Professional colleges	British Districts	4	554	12	5	979	32	5	1,271	45
" "	Native States	...	...	...	...	...	...	...	...	...
Secondary schools:—										
High schools	British Districts	69	18,217	1,418	103	21,319	2,343	100	20,448	2,195
" "	Native States	12	2,888	21	22	4,224	...	25	4,341	...
Middle schools	British Districts	252	12,559	2,463	253	12,009	2,481	261	11,665	2,757
" "	Native States	68	4,016	19	100	5,027	16	101	4,371	14
Primary schools:—										
Upper schools	British Districts	6,773	93,414	5,078	6,601	105,440	8,111	6,874	87,184	7,778
" "	Native States		34,529	1,716		39,572	2,946		36,249	2,662
Lower schools	British Districts	2,088	242,896	42,511	2,435	223,514	50,291	2,405	199,528	47,290
" "	Native States		75,791	10,466		69,378	14,376		64,434	12,656
Training schools	British Districts	11	625	148	15	536	203	17	670	216
" "	Native States	4	83	25	4	55	27	2	58	23
Other special schools	British Districts	26	1,766	23	30	2,646	48	35	2,693	43
" " "	Native States	3	181	...	3	231	...	7	578	...
Private.										
Advanced	British Districts	78	1,149	34	49	1,582	108	73	2,409	521
"	Native States	6	110	...	34	840	327	19	490	...
Elementary	British Districts	1,989	42,870	4,994	1,843	35,161	5,384	1,987	34,762	6,859
"	Native States	549	16,861	149	589	17,353	2,972	494	15,306	4,534
	Total British Districts	9,209	415,251	56,689	8,906	404,857	69,023	9,359	362,500	67,738
	Total Native States	2,732	134,539	12,396	3,189	136,812	20,665	3,056	126,061	19,889
	Total Presidency	11,941	549,790	69,085	12,095	541,669	89,688	12,415	488,561	87,627

TABLE XV

University Results, Bombay Presidency

Passed in	1881.		1891.		1901.		1904.	
	British Districts.	Native States.	British Districts.	Native States.	British Districts.	Native States.	British Districts.	Native States.
Matriculation	382	39	611	118	925	207	1,130	362
First or Intermediate in Arts, Science, or Law	226	2	461	76	982	168	994	239
Ordinary Bachelor's degree	92	...	176	6	277	33	452	42
Higher or special degrees	4	...	2	...	14	2	24	1

TABLE XVI. EDUCATIONAL FINANCE, BOMBAY PRESIDENCY

	Expenditure on institutions maintained or aided by public funds from									
	Provincial revenues.*		District and municipal funds.		Fees.		Other sources.		Total.	
	1900-1.	1903-4.	1900-1.	1903-4.	1900-1.	1903-4.	1900-1.	1903-4.	1900-1.	1903-4.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Arts and professional colleges:—										
British Districts	1,70,695	2,03,862	15,474	14,050	2,08,555	2,76,251	46,712	52,157	4,41,436	5,46,320
Native States	33,741	66,179	...	...	6,058	10,200	119	110	39,918	76,489
Training and special schools:—										
British Districts	2,68,087	2,69,148	75,935	78,326	23,101	29,399	1,17,827	1,70,942	4,84,950	5,47,815
Native States	34,893	31,974	..	..	95	131	684	820	35,672	32,925
Secondary boys' schools:—										
British Districts	3,40,067	3,58,370	40,221	47,054	6,08,218	6,53,881	3,00,864	2,94,865	12,89,370	13,54,170
Native States	2,35,243	2,15,254	5,150	6,263	1,43,600	1,34,049	5,183	13,441	3,89,176	3,69,007
Primary boys' schools:—										
British Districts	7,45,222	9,54,218	10,45,819	9,81,531	2,90,256	2,74,408	2,64,123	3,22,526	23,45,420	25,32,683
Native States	5,61,201	5,58,525	42,235	45,986	61,200	57,957	5,709	4,729	6,70,345	6,67,197
Girls' schools:—										
British Districts	1,59,648	1,83,401	1,13,275	1,14,009	1,21,704	1,35,624	2,73,689	3,32,638	6,68,316	7,65,672
Native States	93,095	91,839	5,003	4,813	268	125	1,326	2,644	99,692	99,421
Total British Districts	16,83,719	19,68,999	12,90,724	12,34,970	12,51,834	13,69,563	10,03,215	11,73,128	52,29,492	57,46,660
Total Native States	9,58,173	9,63,771	52,388	57,062	2,11,221	2,02,462	13,021	21,744	12,34,803	12,45,039
Total Presidency	26,41,892	29,32,770	13,43,112	12,92,032	14,63,055	15,72,025	10,16,236	11,94,872	64,64,295	69,91,699

* 'State revenues' in the case of Native States.

TABLE XVII

Medical Statistics in the Bombay Presidency (including Native States but excluding Aden)

	1881.	1891.	1901.	1904.
Hospitals, &c.				
A. State or State-aided Institutions.				
Number of civil hospitals and dispensaries	181	249	232	302
Average daily number of—				
(*a*) In-patients . . .	1,741.0	2,069.3	2,371	2,681
(*b*) Out-patients	12,802.4	17,500.2	14,024	18,842
Income from –				
(*a*) Government payments Rs.	6,86,712	7,90,940	6,73,644	7,30,677
(*b*) Local and municipal payments . . . Rs	1,52,468	2,45,029	2,74,933	4,94,214
(*c*) Fees, endowments, and other sources . . Rs.	44,145	86,965	1,11,732	1,57,180
Expenditure on—				
(*a*) Establishment . . Rs.	5,70,297	7,17,802	5,08,855	6,74,328
(*b*) Medicines, diet, buildings, &c. . . . Rs.	2,75,422	3,15,875	4,58,922	6,75,460
B. Private, Railway, Municipal, &c., Institutions.				
Number of institutions . .	3	9	381	363
Average daily number of—				
(*a*) In-patients . . .	14	30	...	...
(*b*) Out-patients . . .	28	59	...	...
Lunatic Asylums.				
Number of asylums . . .	5	6	6	7
Average daily number of—				
(*a*) Criminal lunatics . .	88	104	100.1	110
(*b*) Other lunatics . . .	544	609	669.5	701
Income from—				
(*a*) Government payments Rs.	96,291	1,00,859	1,38,160	1,13,071
(*b*) Fees and other sources Rs.	11,405	16,182	23,998	23,547
Expenditure on—				
(*a*) Establishment . Rs.	42,917	42,234	49,538	54,495
(*b*) Diet, buildings, &c. Rs.	52,217	61,699	76,799	82,123
Vaccination.*				
Population among whom vaccination was carried on . . .	23,013,619	23,417,205	26,902,263	21,539,199
Number of successful operations	580,610	791,501	658,486	529,421
Ratio per 1,000 of population .	25	34	25	24.58
Total expenditure on vaccination . . . . . Rs.	2,25,161	2,80,724	3,45,924	2,69,068
Cost per successful case . Rs.	0-6-2	0-5-8	0-8-4	0-8-2

* The vaccination statistics are for the financial year, while the remaining figures in this table are for the calendar year.

Bombay City.—The capital of the Presidency of Bombay, and the principal seaport of Western India, situated on an island in 18° 55′ N. and 72° 54′ E. Bombay Island is one of a group lying off the coast of the Konkan; but by the recent construction of causeways and breakwaters it is now permanently united on the north end with the larger island of Salsette, and so continuously with the mainland. The remainder of the group of islands constitutes a part of Kolāba District. For certain administrative purposes Bombay city is regarded as constituting a District by itself, with an area of 22 square miles, and a population, according to the Census of 1901, of 776,006. A special enumeration, in 1906, gave a total of 977,822.

In the beauty of its scenery, as well as in the commercial advantages of its position, Bombay is unsurpassed by any city of the East. The entrance into the harbour from the sea discloses a magnificent panorama. The background is shut in by the range of the Western Ghāts. In front opens the wide harbour, studded with islands, dotted with the white sails of innumerable native craft, and affording a secure shelter to fleets of steamers. The city itself consists of well-built houses and broad streets ennobled by public buildings. The seashore is formed by docks, warehouses, and a long line of artificial embankments extending continuously for nearly 5 miles. On approaching Bombay from the west, there is little to strike the eye: the coast is low, the highest point, Malabar Hill, being only about 180 feet above the sea. But on entering the harbour a stranger is impressed with the picturesqueness of the scene. To the west the shore is crowded with buildings, some of them, as Colāba Church and the Rājābai Clock-tower of the University, very lofty and well-proportioned. To the north and east are numerous islands; and pre-eminent among the hills on the mainland is Bāva Malang, otherwise called Malanggarh, on the top of which is an enormous mass of perpendicular rock, crowned with a ruined fort. The harbour presents an animated and picturesque scene. There are usually a troopship and a man-of-war of H.M.'s East India Squadron, together with numerous large passenger or merchant steamers, among which may be mentioned those of the Peninsular and Oriental Company, the British India Steam Navigation Company, the Messageries Maritimes, the Italian Rubattino, the Austrian Lloyd, the Clan, Anchor, and Hall lines. Many other steamers, and an occasional sailing vessel, are to be seen riding at anchor, swinging with the swiftly-flowing tide, and discharging or receiving cargo. All kinds of boats, ships' dingies, steam-launches, native *baghlas* and *padaos* incessantly ply on the harbour. At the southernmost point of the 'Prongs,' a dangerous reef jutting out from Colāba Point, stands the lighthouse, built in 1874, and containing a first-class dioptric light, which is visible for 18 miles.

Description.

The island consists of a low-lying plain about 11½ miles long by 3 to 4 broad, flanked by two parallel ridges of low hills. Colāba Point, the headland formed by the longer of these ridges, protects the harbour lying on its eastern side from the force of the open sea; the other ridge terminates in Malabar Hill; and between the two lies the shallow expanse of Back Bay. The island is in shape a trapezoid. It is popularly likened to a hand laid palm upwards, with the fingers stretching southwards into the sea, and the thumb representing Malabar Hill, with Back Bay between the thumb and forefinger: others see in it a resemblance to a withered leg, with a very high heel and pointed toe, the heel being Malabar Hill and the toe Colāba. On a slightly raised strip of land between the head of Back Bay and the harbour is situated the Fort, the original nucleus round which the city grew up, but now chiefly occupied by public buildings and commercial offices. From this point the land slopes westward to the central plain, which, before the construction of the embankment known as the Hornby Vellard, was liable to be submerged at high tide. To the north and east recent schemes of reclamation have similarly shut out the sea, and partly redeemed the foreshore for the use of commerce. In the extreme north of the island a large tract of salt marsh still remains unreclaimed.

The Government offices, the business houses, and the shops cluster thickly in the Fort. Many of the public and commercial buildings, constructed during the past forty years, are of splendid dimensions, and have no rival in any other Indian city, except perhaps Calcutta. The houses in the native bazar are also handsomely built, rising three, four, and even six storeys in height, with elaborately carved pillars and frontwork. Some of the narrow, unpaved, and crowded streets give an inadequate idea of the real opulence of their inhabitants. But in many of them may be seen evidences of the wealth of the city and of the magnificence of its merchant princes. The most conspicuous line of public buildings is on the Esplanade facing Back Bay. Here is the Secretariat, an enormous erection in the Venetian Gothic style of architecture; the University Library, Senate Hall, and Rājābai Clock-tower; the High Court; the Public Works, Post, and Telegraph offices. A little inland, and behind the Secretariat range of buildings, runs the broad thoroughfare of Rampart Row, off which branch many narrow streets containing native and European shops. Rampart Row and its continuation towards the Apollo Bandar (landing-place) form the main line of thoroughfare of the European quarter. Along one side of Rampart Row is a colonnade of arches giving entrance to the Bombay Club, the French Bank, and other buildings. On the opposite side of Rampart Row, which is here 50 or 60 yards broad, rises another line of many-storeyed offices chiefly belonging to merchants in grain and cotton. The Fort is illuminated during the night by incandescent light.

Arrangements have recently been completed for the installation of electric light, and of electric tramways to supersede the present horse tramways. Near the Apollo Bandar is the Sailors' Home, erected at the expense of a former Gaikwār of Baroda. The open crescent-shaped site opposite the Sailors' Home has been set apart for the erection of a Museum, of which His Royal Highness the Prince of Wales laid the foundation-stone in November, 1905. Behind the Sailors' Home is the Yacht Club, a favourite resort of Bombay society; adjoining it are the club residential quarters and the grand structure of the new Tāj Mahal Hotel. At the other end of Rampart Row is a white marble statue of Queen Victoria, under a Gothic canopy, the gift of the same Gaikwār. The most important buildings in the densely built space occupying the site of the Fort are the circular row of offices and warehouses known as the Elphinstone Circle, the Custom House, the Town Hall, the Mint, and the Cathedral. North of the Town Hall lies the Ballard Pier, whence passengers by the mail steamers embark and where also they land.

The Castle and Fort St. George are the only two spots now retaining any traces of the old fortifications. The existing defences of Bombay harbour are batteries on the rocks which stud the sea from about opposite the Memorial Church at Colāba to the Elphinstone Reclamation. The one most to the south, called the Oyster Rock, is 1,000 yards from the shore and 8,400 feet south-west of the Middle Ground Battery. The fort on the Middle Ground shoal is in the middle of the anchorage, 1,800 yards from shore. The third defence is on Cross Island, at the north end of the anchorage, 100 yards from the shore and 4,000 yards from Middle Ground. There are also batteries at Malabar Point and Mahālakshmi on the western side of the island.

On leaving the Bazar Gate police station, which represents the most northernly point of the Fort section, the first object of interest is the Victoria Terminus of the Great Indian Peninsula Railway, a very handsome building standing on the original site of an old temple of Mumbādevī. Opposite the station are the municipal offices, the foundation stone of which was laid by Lord Ripon in December, 1884. Immediately beyond them the new offices of the leading Bombay newspaper, the *Times of India*, have now been erected; and thence a few minutes' stroll will bring the visitor to the great markets, named after Mr. Arthur Crawford, who held the post of Municipal Commissioner from 1865 to 1871. North of the markets lies the native city proper. Two of the best-known thoroughfares in this portion of the island are the Kālbādevī Road and Abdur Rahmān Street, both of which lead to the Pāydhuni ('foot-wash') locality, so called from the fact that in very ancient times a stream flowed there, in which passers-by used to wash the dust of travel from their feet. Close to the junction of the Kālbā-

devī Road and Abdur Rahmān Street stand the modern temple and tank of Mumbādevī, the guardian goddess of the island. To the north of Pāydhuni there are two interesting buildings, namely, the city jail in Umarkhādi built in 1804 under the administration of Jonathan Duncan, and the Jewish synagogue called 'The Gate of Mercy.' The latter was built by a member of the Bani-Israil community named Ezeckiel, who served in the Bombay army during the campaign against Tipū Sultān. Having been captured, he was about to be executed with other prisoners, when the mother of Tipū begged that his life might be spared, and her request was seconded by the chief Munshi, who declared that Ezeckiel belonged to a race known as 'the chosen of God.' He was accordingly taken into Tipū's service; but he managed at length to escape to Bombay, where, in gratitude for his deliverance, he built the synagogue. Leaving the Tādvādi and Mazagaon sections, which contain several features of interest, as for example the Victoria Gardens in the former and the temple of Ghorupdeo in the latter, and journeying northward, one reaches the historic locality of Parel. It was here and in the neighbouring villages of Naigaon, Vadāla, and Mātunga that Bhīma Rājā and his followers settled on their arrival from the Deccan about 1294. In later times Parel was the favourite quarter of the European inhabitants, and contained the official residence of the Governor of Bombay. It has now yielded place as a fashionable European quarter to Malabar Hill and Cumballa Hill (a continuation of the former), both of which are covered with handsome houses and bungalows. The views obtainable from the ridge of Malabar Hill and the summit of the Altamont Road, which winds up Cumballa Hill, are magnificent. Standing by night upon the ridge, one looks down upon the palm-groves of Chaupāti, and across the sweep of Back Bay to the Rājābai Clock-tower, the Secretariat, and the Lighthouse at Colāba Point, the whole curve of land being jewelled with an unbroken chain of lights, which have earned the appropriate title of 'The Queen's Necklace.' From Cumballa Hill the view to the east includes the entire native town, the hill of Mazagaon, upon which, in early days, a whitewashed house stood as a guide for vessels entering the harbour, and beyond them the harbour, islands, and mainland of the North Konkan. To the left lies the industrial area, with its high chimney-stacks and mill roofs, and the coast section of Siwri, in which may still be seen relics of the old fortress built upon a projecting spit of land. Siwri in these days contains the European cemetery, which was originally the garden of the Horticultural Society of Bombay. On the west side Cumballa Hill slopes down to the shore, where, close to the Hornby Vellard, the Mahālakshmi temples command attention. The present shrines are comparatively modern; but they are stated to stand upon the site of three very old temples which were destroyed during the period of Muhammadan domination. The temples form the northern

limit of another suburb, known as Breach Candy, where the houses are built close down upon the seashore within the refreshing sound of the waves. The ruined fortress of Warli can be visited from this point; while a good road leads through the great coco-nut woods of Māhīm to the Lady Jamsetjī Causeway and the neighbouring island of Salsette. The causeway was opened in 1845, up to which time communication between Bombay and Bāndra, the southernmost village in Salsette, had been carried on by means of ferry-boats.

At Malabar Point the Governor of Bombay has a pretty marine villa, in which he spends the cold season of the year. During the hot season the Bombay Government repairs to Mahābaleshwar, while it spends the rainy or monsoon season at Poona. Not far from Malabar Point lie the ruins of the old temple of Wālkeshwar, which was built by the Silāhāra dynasty some time between A.D. 810 and 1260. Other interesting religious monuments in the island are the tomb of a Musalmān *pīr* at Māhīm and the great Jāma Masjid in the city. The former was built about 1431 in memory of Shaikh Alī Paru, and is the only architectural legacy to Bombay of early Muhammadan rule. The shrine, which was repaired and enlarged in 1674, is surmounted by a dome, the inner side of which is ornamented with a gilt inscription in Arabic characters recording the name and dates of the birth and death of the saint. An annual fair is still held here, which is attended by Muhammadans from all parts of India. The Jāma Masjid was built in 1802.

Bombay never attains great extremes of heat or cold, such as are encountered in the interior of India; but the climate, though temperate, is oppressive, owing to the extreme saturation of the air with moisture during the greater part of the year. The cold season lasts from December till March. In June the south-west monsoon breaks, and heavy rain continues with great regularity till the end of September. The hottest months are May and October. The average rainfall for the twenty years ending 1901, as registered at Colāba Observatory, was 74·27 inches, the maximum being 99·74 and the minimum 35. The average temperature is 79·2°.

In the year 1904 the chief causes of mortality were plague (13,504), fever (2,392), and diseases of the respiratory system (7,315).

History.

Originally Bombay consisted of seven separate islands, and formed an outlying portion of the kingdom of Aparānta or the North Konkan, of which the earliest ruler known to history was named Asoka. To him succeeded a dynasty of Sātakarnis or Sātavāhanas, who flourished about the second century A.D., and were in turn succeeded by Mauryas, Chālukyas, and Rāshtrakūtas. The earliest inhabitants of the islands were the Kolis, an aboriginal tribe of husbandmen and fisherfolk, who must have journeyed thither about the opening of the Christian era, and formed rude hut settle-

ments in those portions of the island which are now known as Upper Colāba, Lower Colāba, Dongri, Mazagaon, Naigaon, Sion, Māhīm, and Warli. The island takes its name from the Koli goddess Mumbā, a form of Pārvatī, whose temple, as above mentioned, formerly stood close to the site now occupied by the Victoria station.

In the Maurya and Chālukya periods (*c.* A.D. 450–750) the city of Purī on ELEPHANTA island was the chief place in Bombay harbour; but under the Silāhāra chiefs of the Konkan (810–1260) Bombay became better known through the discovery of the Shrigundi or 'stone of trial,' and the building of the Wālkeshwar temple at Malabar Point. But no town sprang up until Rāja Bhīma, who probably belonged to the house of the Yādavas of Deogiri, founded Mahikāvati (Māhīm) as a direct result of Alā-ud-dīn Khiljī's raid into the Deccan in 1294. Bhīma's followers, among whom the Prabhus, Palshikar Brāhmans, Panchkalshis, Bhandāris, Bhois, and Thākurs were the most noteworthy, spread over the island and settled in Māhīm, Siwri, Naigaon, Mātunga, Vadāla, and Parel. Representatives of these classes are found in Bombay to-day, while many place-names in the island undoubtedly date back to this era of Hindu rule, which lasted till 1348, when Salsette and Bombay were conquered by a Muhammadan force from Gujarāt. The islands remained part, first of the province, and then of the kingdom, of Gujarāt until 1534, when Sultān Bahādur ceded them to the Portuguese. With the exception of the well-known shrine at Māhīm and one distinct class of the population, the Konkani Muhammadans, the era of Muhammadan rule has left little trace upon modern Bombay, for the Sultāns of Gujarāt contented themselves with establishing a military outpost at Māhīm, and delegated their administrative powers to tributary Hindu chieftains.

The Portuguese were no more successful in the work of colonization than their immediate predecessors. The lands were gradually divided by them into manors or fiefs, which were granted as rewards to deserving individuals or to religious orders on a system known as *aforamento*, whereby the grantees were bound to furnish military aid to the king of Portugal, or, where military service was not deemed necessary, to pay a certain quit-rent. The northern districts were parcelled out among the Franciscans and Jesuits, who were responsible for the building of several churches on the island, notably that of Our Lady of Hope on the Esplanade, now destroyed, and those of St. Michael at Māhīm, and of Our Lady of Salvation at Dādar, which exist to this day. The Quinta or Manor House, built some time in the sixteenth century, stood upon the site of the modern arsenal behind the Town Hall, and was surrounded by a lovely garden. It was partly burnt by the Dutch and English in 1626, but remained standing in a more or less dilapidated condition until 1661, when Donna Ignez de Miranda, the pro-

prietress of the Manor of Bombay, handed it over to the British representative, Humphrey Cooke. The intolerance of the Portuguese had seriously hindered the growth of the settlement, which, when it was transferred to the English, had a population of some 10,000, mostly Kolis, Agris, and other low castes, with a sprinkling of Prabhus, Brāhmans, and Muhammadans.

The English had coveted Bombay for many years before it came into their possession under the terms of the marriage treaty between Charles II and the Infanta of Portugal. They had endeavoured to seize it by force in 1626; the Surat Council had urged the Directors of the East India Company to purchase it in 1652; and the Directors in their turn had urged upon Cromwell the excellence of the harbour and its natural isolation from attack by land. But it was not until 1661 that Bombay was ceded to the English king, nor until 1665 that Humphrey Cooke took possession of the island on his behalf. The revenues at the date of the cession were not large, accruing mainly from taxes upon rice lands, oil, and *ghi*, and upon the coco-nut and brab palms which grew in abundance between the *maidān* or Esplanade and Malabar Hill. Moreover, so averse were the Portuguese in India to the cession, that they retained their hold upon the northern portion of the island, declaring that it was private property; and it was only by the vigorous action of Cooke and his immediate successors that Māhim, Sion, Dhārāvi, and Vadāla were taken from the Portuguese religious orders and incorporated with the island proper.

The island was transferred in 1668 from the Crown to the East India Company, who placed it under the factory of Surat. The real founder of the modern city was Gerald Aungier (1669-77), who believed in the future of 'the city which by God's help is intended to be built,' and increased its population to 50,000 by the measures which he took for the settlement of the land revenue, the establishment of law courts, the strengthening of the defences, and the securing of freedom of trade and worship to all comers. Among the most important of the new settlers were Baniās, Armenians, and Pārsis.

In the later years of the seventeenth century the settlement became so unhealthy through the silting up of the creeks that separated its component islands and through the prevalence of plague and cholera (*mordexin*), that it was said that 'two monsoons were the life of a man.' Progress was further checked by quarrels among the leading men and the rivalry between the old and the new East India Companies. The steady unfriendliness of the Portuguese and the prevalence of piracy made trade unsafe, and supplies for the large population hard to obtain, while down to 1690 the Sīdī admirals of the Mughal fleet were frequent but unwelcome guests of the English, who did their best to trim between them and the Marāthās.

In 1708 a brighter period began with the union of the two Companies, which was followed by the transfer of the Governor's headquarters from Surat to Bombay. The two great needs of the time were a base of supplies on the mainland and the suppression of piracy. The former object was attained in 1733 by an alliance with the Sidis, but the pirates, though held in check, were not yet suppressed. The Marāthā conquest of Bassein and Salsette (1737-9) put an end to the hostility of the Portuguese, but warned Bombay to strengthen its forces by sea and land against a more dangerous enemy. The town wall had been finished in 1718, and settlers again flocked in, especially from distracted Gujarāt.

The dockyards were extended under the superintendence of a Pārsī 'wadia' or ship-builder from Surat, Lowjī Nasarwanjī, who arrived in Bombay in 1736; a marine was established about the same date: a criminal court was created in 1727, and a mayor's court in 1728 for the settlement of civil disputes; and a bank for the encouragement of trade and agriculture was established in 1720. Severe measures were taken for the prevention of treachery, as evidenced by the historic trial and conviction of Rāma Kāmāthī; monetary loans were granted, and other conveniences afforded, to various classes, such as the weavers and small traders, whose settlement it was held desirable to stimulate. As a result, the population had expanded to 70,000 by the year 1744, and the revenues of the island had risen to about 16 lakhs as compared with about Rs. 37,000, which it had yielded to the Portuguese. The most notable building in the Fort at this time was St. Thomas's Church, which was opened by Governor Boone on Christmas Day, 1718.

The defences of the town were further strengthened by reason of the French Wars (1744-8 and 1756-63), and the influx of settlers from the mainland made the question of supplies as well as that of the protection of trade from piracy more pressing. Both were in a measure secured by an alliance with the Peshwā, which resulted in the acquisition of Bānkot (1755) and in the destruction of the pirate nest at Vijayadrug by a force under the command of Watson and Clive (1756). The occupation of Surat castle (1759) and the capture of the forts of Mālvān and Reddi (1765) were further steps taken in the interests of trade. This period witnessed the opening of two new docks at Bombay, one being completed in 1750 and the second in 1762, and a further increase in the number of vessels. Regulations were also passed for the preservation of good order on the island; a town scavenger was appointed; building rules were promulgated in 1748; advances were made from the Land Pay Office to the poorer inhabitants whose dwellings had been destroyed by fire; passage-boats between Bombay and the mainland were organized into a regular service; and a Court of Requests was instituted in 1753 for the

recovery of debt. As a result, a very large increase of population took place; and so many houses were built in the native town that many of them had eventually for safety's sake to be removed. Grose referred in 1750 to the enormous amount of building which had taken place in the 'oarts' (gardens) and groves; and new thoroughfares were continually being opened throughout the period. The old Government House at Parel is first spoken of in these years as 'a very agreeable country-house, which was originally a Romish chapel, belonging to the Jesuits, but was confiscated about 1719 for some foul practices against the English interest.' The building has long been deserted by the Governors of Bombay, and is at present utilized as a laboratory for plague research.

It was the wish to acquire Salsette as a defence and a base of supplies that led the Bombay Council to enter the field of Marāthā politics (1772). The history of the transactions that ended in the formation of the modern Presidency is dealt with elsewhere. (*See* BOMBAY PRESIDENCY, History.) In the island itself great improvements were made. A tariff of labour rates was formulated; a better system of conservancy was enforced in 1777: hospitals, to which Forbes refers in the *Oriental Memoirs*, were erected in 1768 and 1769; an accurate survey of the land was carried out; a proper police force was organized about 1780 in place of the old Bhandāri militia; and in 1770 the cotton trade with China was started, in consequence of a considerable famine in that country, and an edict of the Chinese Government that a larger proportion of the land should be utilized for the cultivation of grain. The orderly extension of the native town was also taken in hand about 1770: crowded and insanitary houses were in many cases removed; the Esplanade was extended and levelled: new barracks were built: and every encouragement was given to the native community to build their dwellings at a greater distance from the Fort. The great Vellard, which takes its name from Governor Hornby (1771–87), was erected during this period, and, by uniting the southern boundary of Warli with the northern limit of Cumballa Hill, shut out the sea from the central portions of the island, and rendered available for cultivation and settlement the wide stretch of the flats. The traveller Parsons, who visited the island in 1775, speaks of the town as 'nearly a mile in length from the Apollo Gate to that of the Bazar, and about a quarter of a mile broad in the broadest part from the *bunder* across the green to Church Gate, which is nearly in the centre as you walk round the walls between Apollo and Bazar Gates. Between the two marine gates is the castle, properly called Bombay Castle, a very large and strong fortification which commands the bay: and the streets are well laid out and the buildings so numerous as to make it an elegant town.'

In 1798 the mayor's court gave place to that of a Recorder. In 1800 this court was held in Governor Hornby's house, which is familiar in these days as the Great Western Hotel; and there Sir James Mackintosh, who succeeded the first Recorder in 1802, used to decide civil and criminal suits. In 1793 the Governor and Members of Council were the only Justices of the Peace in Bombay, and in 1796 sat in a court of quarter sessions, inviting two of the inhabitants to sit with them. This system continued till 1807, when the Governor and Council were empowered to appoint a certain number of the Company's servants or other British inhabitants to act as justices under the seal of the Recorder's Court. Two notable events at the commencement of the nineteenth century were the famine of 1803, which drove a vast number of people from the Konkan and the Deccan to seek employment in Bombay, and the great fire which broke out in the Fort in the same year. Though the damage done to house property was enormous, the conflagration enabled the Government to open up wider thoroughfares in the most congested parts of the Fort; and it acted as a great incentive to the native community to build their houses, shops, and godowns outside the Fort walls, and in those areas which are now the busiest portion of the city. The abolition of the Company's monopoly of the Indian trade in 1813 led to a great increase in the number of independent European firms and largely improved the export trade in raw cotton.

The conquest of the Deccan in 1817–8 put an end to the Marāthā troubles and transformed Bombay from a trading town into the capital of a large Province. The Recorder's Court was replaced in 1823 by the Supreme Court. The Borghāt road to Poona was opened in 1830, and a regular monthly mail service to England by the overland route was established in 1838. The same year saw the construction of the Colāba Causeway, which united the last of the original seven islets to the main island of Bombay, and was immediately followed by commercial speculation in recovering a certain portion of ground for building factories, wharves, and for the greater facility of mercantile operations. A new hospital was built in Hornby Row in 1825, a new Mint was opened in 1827, and the well-known Town Hall was completed after a series of vicissitudes in 1833. The Bishopric of Bombay was constituted in 1835, and in 1838 the old church of St. Thomas became the cathedral of the diocese.

The year 1840 marked the commencement of a period of progress and prosperity. The first sod of the Great Indian Peninsula Railway was turned in 1850; the first 20 miles to Thāna were laid by 1853; and ten years later the Borghāt incline was opened. The Bombay, Baroda, and Central India Railway was completed from the north as far as Bombay in 1864. In 1855 the first contract was made

with the Peninsular and Oriental Company for a fortnightly mail service, which became weekly in 1857. The Austrian Lloyd's, the Rubattino, and the Anchor lines at this time (1857) started regular services. The first Bank of Bombay was opened in 1840; and by 1860 there were at least six large banking corporations, all holding an assured position. Industrial enterprises and schemes, such as the Elphinstone Reclamation scheme, were promoted; the great Vehār water-works were constructed; the first tramway communications were opened in Colāba in 1860; a scheme of drainage was formulated in 1861; and in 1857 the first spinning and weaving-mill commenced to work. By 1860 six more mills had been opened, and Bombay had become the great cotton market of Western and Central India. Between 1861 and 1865 occurred the enormous increase in the cotton trade which was brought about by the outbreak of the Civil War in America. The supply of the American staple being suddenly cut off, Lancashire turned eagerly to Bombay for her cotton, and poured into the pockets of the mercantile community about 81 millions sterling over and above the former price for their cotton. An unexampled exportation of cotton continued as long as the war was carried on. 'Financial associations,' as Sir Richard Temple wrote in *Men and Events of My Time in India*, 'sprang up like mushrooms; companies expanded with an inflation as that of bubbles; projects blossomed only to decay.' Suddenly, when commercial delirium was at its height, the American War ended. The price of Bombay cotton at once fell fast, and the whole elaborate edifice of speculation toppled down like a house of cards. Nevertheless the commercial stability of the city suffered no permanent damage, and modern Bombay was literally built up and established during those years. The wealth of the speculators of the early sixties was sunk in the engineering and reclamation schemes, which pushed back the sea and gave the island her splendid wharf accommodation. It was they who presented Bombay with her University Library Buildings, the Rājābai Clock-tower, the Jamsetjī Jījībhoy School of Art, and the Mechanics' Institute. The Government aided private enterprise in the task of beautifying and improving the island; and it was during this period that those great schemes were formulated which have endowed the city with the unrivalled line of public buildings facing Back Bay, with the Elphinstone Circle, with admirable railway workshops, with a fine dockyard at Mazagaon, with new police courts and lighthouses, with the Wellington Memorial Fountain, and the European General Hospital. Room was made for many of these improvements by the demolition of the walls of the Fort in 1862.

Great changes took place at this time in municipal administration. In 1858 a triumvirate of municipal commissioners was appointed for

the control of urban affairs, which was succeeded in 1865 by a body corporate composed of justices for the city and island, the entire executive power and responsibility being vested in a commissioner appointed by Government for a term of three years. This system existed until 1872, when a new municipal corporation, consisting of sixty-four persons, all of them ratepayers, was established by law. Considerable progress was made in sanitation and communications. An efficient Health department was organized in 1865; many old and dangerous graveyards were closed between 1866 and 1871; special committees were appointed to deal with the drainage question; new markets were built, notably the Crawford Markets, which were opened in 1869 and form one of the most useful of all the public improvements executed in Bombay; the water-supply of Vehār was increased; the Tulsī water-works were commenced; the Oval and Rotten Row were laid out as recreation grounds; and the reclamation of the flats with town-sweepings was after much discussion taken in hand.

Between 1872 and 1881 railway communication was extended across the continent of India and steam navigation along the coast. The mill industry throve apace, and gave employment in 1882 to about 32,000 persons. The Tulsī water-works were completed in 1879; the Port Trust, established on the model of the Mersey Board in 1873, opened the Prince's Dock in 1880; new roads were constructed in various parts of the island; the lighting of the city was extended; the Victoria Gardens, the Elphinstone Circle Garden, and the Northbrook Garden in the poorer portion of the city, were laid out between 1873 and 1874; while in 1878 the municipality raised a loan of 27 lakhs for drainage purposes, and commenced the task of laying a new main sewer from Carnac Bandar to Love Grove, and a new outfall sewer, pumping station, and pumping plant at Warli. The resources of Bombay were tested in 1878, when an expeditionary force was dispatched to Malta: within fourteen days after the receipt of orders the Bombay Government engaged 48,000 tons of merchant shipping and dispatched from the port 6,000 men and 2,000 horses with two months' supplies of provisions and six weeks' supply of water. Again in 1899 the salvation of Natal directly resulted from the promptitude with which Bombay carried out the embarkation and dispatch to South Africa of a large military force.

The water-supply of the city was further improved by the opening of the Pawai works in 1889, and of the great Tānsa works in 1891-2. Between 1872 and 1891 much attention was paid to education, with the result that the Census of 1891 showed an increase of 46,000 in the number of literate persons. Schools for deaf-mutes were subsidized; the Victoria Jubilee Technical Institute was founded by Lord Reay's Government; tramway communications were greatly extended: a good

fire brigade service was organized; special cholera and small-pox hospitals were erected for the benefit of the poorest classes; and the streets were cleared of lepers to a great extent by the opening of the Mātunga Leper Asylum, in which the victims of this unsightly disease are so well cared for that they feel no temptation to stray away. The export and import trade showed a remarkable increase during the ten years prior to 1891, while the mill industry assumed such large proportions that legislation for the regulation of female and child labour became imperative in 1890. Not only had sections of the city proper, such as Māndvi and Dhobi Talao, been choked with buildings in such a way that their original character was wholly obliterated; but the northern sections of the island, such as Parel, Byculla, Tādvādi, Nāgpāda, and Chinchpugli, had expanded through the progress of industrial enterprise into the populous dwelling-places of a large immigrant population.

The great influx of labourers which took place between 1860 and 1890 has been indirectly responsible for the continued presence and virulence of the plague, which broke out for the first time in 1896. The congested state of many streets, and the monstrous overcrowding of houses, which were erected to accommodate a great influx of population, have proved highly favourable to the spread of a disease which, during the last seven years, has played havoc with the cotton industry and with trade, and has raised the death-rate of the city and island to an alarming figure. It is the object of the City Improvement Trust, created by Lord Sandhurst's Government, to open out such localities, and by the erection of model dwellings for the artisan classes, to combat successfully the spread of evils, such as plague and phthisis, which at present flourish unchecked in the moist and infected air of the industrial quarters.

Population.

At the time of the cession of Bombay to the English, the population is stated by Dr. John Fryer in his *New Account of East India and Persia* (1698) to have been 10,000: and, according to Niebuhr, it had increased to 70,000 in 1744. In 1780 a special committee, appointed to inquire into the price of food-grains, was furnished with a rough census of all residents, which totalled 113,726. By 1814 this number had, according to a contemporary writer, risen to 180,000: and an estimate recorded in 1836 showed a further increase to 236,000. Ten years later the benefits of peace, growth of commerce, and improvement of communications had raised the total to 566,119. On the initiative of Sir Bartle Frere a properly organized census was for the first time taken in 1864, which recorded a total population of 816,562. This abnormal figure, which was mainly due to the extraordinary prosperity which Bombay enjoyed during the American War, decreased in 1872 to 644,405; but the

decrease was the natural outcome of the reversion of Bombay commercial life to its ordinary groove, and was in no wise permanent, as is apparent from the census figures of 1881 and 1891, which amounted to 773,196 and 821,764 respectively. According to the Census of 1901 the population of the area administered by the Bombay municipality, which is coextensive with Bombay island, in an area of 22 square miles, is 776,006[1]. This figure includes 37,681 persons who are described as homeless, as the harbour population, or as travellers by the railway. The density of population per acre for the whole island is 51, but this figure varies largely in different areas. In Kumbārwāda, for example, there are 598 persons to the acre, in Khāra Talao 556, in Second Nāgpāda 546, in Chakla 472, and in Umarkhādi 460; whereas in Sion there are only 5 persons to the acre, in Siwri 20, in Māhīm 21, and in Warli 25. It will be apparent from these figures how suitable a field is afforded by the northern portions of the island for the wider and more healthy distribution of the native population. The extension of electric traction, which the municipality is at present endeavouring to establish, will draw off the surplus population of the central portions of the city and lower the death-rate. The average population per inhabited house is 24·5 for the whole island, rising to 35 in B ward, which includes Chakla, Māndvi, Umarkhādi, and Dongri, and sinking to 15 in G ward, which comprises Māhīm and Warli. The great poverty of the majority of the population is shown by the fact that 80 per cent. of the whole number occupy tenements containing only a single room, the average number of dwellers in such a room being about 5. Instances were discovered in 1901 of 39, 43, and 54 persons occupying and sleeping in a single room; while three of the largest tenement houses in the central part of the island gave shelter to as many as 587, 663, and 691 individuals. The proportion of males in the total population is over 61 per cent. The number of females to 1,000 males varies considerably by localities, there being 770 in Dongri and only 234 in the southern portion of the Fort. A very large proportion of the male inhabitants come to Bombay only for a few months in search of work, leaving their families in their native villages. The number of children under one year of age had sunk in 1901 to the very low figure of 9,900: but this was brought about by a high rate of mortality among infants since 1897 and an abnormally low birth-rate.

Before the outbreak of the plague in 1896 the average death-rate for the whole population was 24 per 1,000. Since 1896 it has risen to 78. The birth-rate is as low as 14 per 1,000; but this is no indication of the true natural increase, the majority of the population being immigrants whose women return to their homes at the time of maternity.

Only 23 per cent. of the total population claim the island as their

[1] The population in 1906 was 977,822, according to a special Census.

birthplace; and the proportion of those born in Bombay is highest in sections like Dhobi Talao and Chakla, which are inhabited respectively by Pārsis and Konkani Muhammadans, who are really indigenous. The District of Ratnāgiri in the Konkan supplies Bombay with most of her mill-hands and labourers, while Cutch and the Gujarāt Districts furnish large numbers of the trading classes.

Hardly any city in the world presents a greater variety of national types than Bombay. The Hindus and Muhammadans of course predominate, but in the busy streets the characteristic dress of every Oriental people may be seen. The green and gold turban of the Musalmān, the large red or white head-dress peculiar to the Marāthā, the pointed red turban of the Gujarātī Baniā, and the black or brown brimless hat of the Pārsī, lend colour and variety to the scene. In Dongri and Māndvi one meets members of well-known commercial classes, such as the Osvāl Jains; in Chakla will be found the Konkani Muhammadans, a very rich and influential community, who trace their descent from the ancient 'Nawaits,' the children of Arab fathers and Hindu mothers, and who have gradually risen from the position of ships' officers, sailors, and boatmen to that of prosperous and educated merchants. The Sīdīs, who are descended from the warriors of Sīdī Sambhal and from Zanzibar slave immigrants, will be seen in the Umarkhādi quarter; the Bani-Israil, whose ancestors were wrecked off Chaul in the thirteenth century, are settled in the same neighbourhood; the Julāhās, a poor and somewhat turbulent class of Muhammadan weavers, are met with in Nāgpāda: the portion of Dhobi Talao known as Cavel shelters large numbers of Goanese and native Christians, who have regarded this locality as their stronghold since the era of Portuguese dominion; the unmistakable head-gear of the Arabs is constantly met with in Byculla; Parel and Nāgpāda are peopled by the lower and industrial classes from the Deccan and the Konkan: while hidden away in many corners of the island are small groups of Kolīs, the lineal descendants of the earliest Bombay settlers known to history. The Pārsīs exercise an influence much greater than is implied by their numbers. They commenced to settle in Bombay soon after the cession of the island to the English; and now by the force of their inherited wealth, their natural genius for trade, their intelligence, and their munificent charities, they hold high rank among the native community. Their position was recognized by the Crown when Sir Jamsetjī Jījībhoy received a baronetcy in 1857; and the present representative of his family was chosen to represent the city of Bombay at the coronation of the King-Emperor in 1902. Next in importance to the Pārsīs are the Hindu traders or Baniās, who may be divided into two classes, those of Gujarāt and the Mārwāris from Rājputāna. A large proportion of both these classes adhere to the Jain religion,

while not a few of the remainder belong to the Vaishnav sect, especially to the sub-denomination known as Vallabhāchāryas. The Muhammadans include representatives from all the great countries that have embraced Islām—Arabs, Persians, Turks, Afghāns, Malays, and Africans. The three classes of trading Muhammadans—the Memons, Bohrās, and Khojas—are especially numerous. The spiritual head of the last-named community, His Highness the Aga Khān, was among the representative men invited to His Majesty's coronation in 1902. The commercial dealings of these three classes are chiefly with the Persian Gulf, Zanzibar, and the east coast of Africa; but many of them do not shrink from visiting Europe for trade purposes, and are ready to take advantage of the improved means of communication now existing between Bombay and the rest of the world. The Pārsīs and Jews compete with the English in the markets of Europe.

The following table gives the population of the city in 1901 classified according to religion:—

Religion.	Number.	Percentage
Hindus . . .	508,608	65·54
Muhammadans . .	155,747	20·07
Christians . . .	45,176	5·82
Pārsīs . . .	46,231	5·96
Jains . . .	14,248	1·83
Jews	5,357	·70
Others . . .	639	·08
Total	776,006	100·00

Some idea of the cosmopolitan character of Bombay can be formed from the fact that 62 different languages or dialects are spoken within its limits. Marāthī and Gujarātī are the most widely prevalent, the latter being the main commercial language of the island. A considerable number of Muhammadans are bilingual from an early age, speaking Hindustānī in their homes but conducting their daily business in Gujarātī. In the same way Gujarātī and English are equally well known to many members of the Pārsī community.

Of the total area of the island a considerable portion is still cropped. The chief crop grown is rice; but many varieties of garden vegetables are also cultivated, particularly onions and several members of the gourd tribe. The tending of coco-nut trees, and the preparation of intoxicating drink from this tree and other species of palms, afford employment to a considerable section of the population. The original toddy-drawers of Bombay were the Bhandāris, who at present number nearly 17,000 persons; but a large number of them discarded their hereditary pursuit in favour of military, police, and other duties during the eighteenth century, and they are found engaged at the present day

to many different occupations. The Bombay mangoes are said to have been improved from grafts by the Jesuits and Portuguese priests; and it was from the Mazagaon groves that the royal tables at Delhi, in the time of Shāh Jahān, were supplied. They have long been famous throughout India for their delicate flavour; and there exist to this day in Mazagaon two noted trees which bear a double crop of mangoes every year. The Bombay 'pummelo,' a shaddock which looks like a large orange, is also a favourite fruit.

Industries.

Bombay supports all the many industries incidental to the active life of a great city and seaport. The trades of dyeing, tanning, and metal working are especially prosperous. The School of Art has done much to encourage those technical faculties which depend upon an artistic and scientific education; and the work of its pupils, at the Art Exhibition held during the Delhi Darbār of 1903, earned very high approbation. But the characteristic feature of Bombay manufacture is the rapid growth of the European factory system—mills, worked by steam and employing a large number of operatives, having been erected by local capital, especially in the northern suburbs, where the tall chimney-stacks recall a factory town in Lancashire. Between 1881 and 1903 the total number of factories in the island rose from 53 to 143, the increase being mainly due to the construction and opening of new spinning and weaving-mills; while the number of persons engaged in the manufacture and sale of cotton is 131,796, or 17 per cent. of the total population, as compared with 101,821 in 1891. This increase of the industry during the last decade has taken place in spite of very great disorganization caused by the plague, and in spite of a decline in the Chinese demand for Bombay's production. Since 1897 the mill industry passed through a grave crisis, resulting to some extent from an unsuitable and improvident system of management. The better-conducted mills, however, such as those of the great Pārsī capitalist, the late Mr. Jamsetjī N. Tāta, have made and still continue to make a steady profit from their yarns and piece goods. The industry has proved an inestimable boon to many of the poorer inhabitants of the Konkan and the Deccan, who, without the steady wages which it offers, might have fared ill during the famines of the last few years. At Mātunga there are twenty-four salt-works, which yield an annual revenue of $17\frac{3}{4}$ lakhs.

Commerce.

The latter half of the nineteenth century witnessed a remarkable development of the trade of the port. In 1854–5 the whole trade of Bombay was valued at 16 crores, and twelve years later (1866–7) rose to 47 crores. The yearly average for the succeeding five years was 51 crores. Between 1876–7 and 1895–6 the total value of imports and exports, including the coasting trade, steadily increased from 61 crores to 105 crores. The constant

demand from distant markets, coupled with a considerable improvement of communications, has brought about a rise under every head of imports and exports during the last twenty-five years, the most noticeable increase under the former category being in sugar and cotton manufactures, and under the latter in grain, cotton twist and yarn. The total value of the sea-borne trade passing through Bombay in 1903-4 was 123 crores (exports 64 crores, and imports 59 crores), of which 101 crores represented trade with countries beyond India. The chief exports are raw cotton, grain, seeds, cotton twist and yarn; the chief imports are cotton goods, metals, and machinery. The number of vessels, sailing and steam, which entered and cleared with cargoes from and to foreign countries at the port of Bombay in 1903-4 was 1,607, with a tonnage of 2,764,303. (For further particulars of sea-borne trade, *see* the article on the BOMBAY PRESIDENCY.)

Bombay possesses a Chamber of Commerce with 116 members representing 200 firms, and a committee of 12 elected annually, whose deliberations are presided over by a chairman. The Chamber is represented on the Legislative Council, the municipality, the Port Trust, and the Bombay Improvement Trust. There is also a special association for protecting and furthering the interests of the cotton industry, styled the Bombay Mill-Owners' Association. Over 100 mills are represented on the general committee, and the opinion of the association therefore carries great weight on all questions connected with the industry. Founded in 1868, the association has witnessed an increase from 3 to 143 mills in the territories from which it draws its members.

Administration.

The Government land revenue, amounting to 3 lakhs annually, is under the charge of an official styled the Collector of Bombay, who is a member of the Covenanted Civil Service, and also performs the functions of Collector of Opium and Abkāri (Excise), and Income-Tax Commissioner. The Presidency Stamp and Stationery offices and the Steam-Boiler Inspection department are also in his charge, and he is assisted by one Indian Civilian, who is Chief Inspector of the numerous factories in the island. The administration of the Sea Customs is in charge of a Collector, aided by an assistant, both of whom belong to the Imperial Customs Department. The ordinary local administration is vested mainly in the Bombay municipality, which, as constituted by Act III of 1888, consists of 72 members—36 elected by the ratepayers, 20 by the Chamber of Commerce, the University, and the Justices of the Peace, and 16 appointed by Government. The corporation thus constituted possesses extensive powers, and elects its own president and eight out of twelve members of a standing committee which deals with ordinary business. The other four members of this committee are appointed by Govern-

ment. A chief executive officer, known as the Municipal Commissioner, is appointed by Government, usually from the ranks of the Indian Civil Service. The revenue and expenditure of the corporation is shown in the table on p. 421. The general tax which contributes a large proportion of the revenue consists of a tax on houses and lands, fixed at 10¾ per cent. on the gross annual value of houses and lands, the ¾ per cent. being devoted to the maintenance of a fire brigade. The tax produces an annual revenue of 25 lakhs, to which are added contributions of about one lakh and 2 lakhs paid respectively by Government and the Port Trust. The municipality has raised loans amounting in 1904 to about 479 lakhs, mainly for the provision of an adequate water-supply and of drainage works.

Justice is administered by the Bombay High Court, which, in addition to the appellate and revisionary powers which it exercises throughout the Presidency, is a court of first instance for causes arising within the island of Bombay. A Small Cause Court and four Presidency Magistrates exercise jurisdiction in minor civil and criminal matters. The former takes cognizance of suits not exceeding Rs. 2,000 in value arising within the island. Four benches of honorary magistrates were established in 1903 to deal with minor criminal misdemeanours.

The city police force, under a Commissioner, who is directly subordinate to Government, consists of 2,126 officers and men, 83 of whom are mounted. The force includes 72 Europeans. There are six Europeans in the Sanitary Police, a temporary body working under the Port Health Officer, but subordinate to the Police Commissioner as regards discipline and promotion. The Commissioner is assisted by a Deputy and eight Superintendents. The municipal corporation pays a fixed contribution of 5 lakhs towards the cost of the force. There are two special jails in the city, called the house of correction, which is at Byculla, and the common prison, at Umarkhādi. The question of constructing a new prison is under the consideration of Government.

Bombay is the head-quarters of the Bombay brigade, which falls in the Poona division of the Western Command, and is commanded by a Brigadier-General. The garrison consists of three companies of garrison artillery, one company of the submarine mining corps, one British and two Native infantry regiments[1], and five corps of volunteers. The volunteers comprise the Bombay Light Horse, the Bombay Volunteer Artillery, the Great Indian Peninsula Railway Volunteer Rifles, the Bombay, Baroda, and Central India Railway Volunteers, and the Bombay Volunteer Rifle Corps, with an aggregate in 1906 of 1,043 men. In Bombay are also stationed the Director and Assistant Director of the Royal Indian Marine, which is the modern representative of the old Bombay Marine and Indian

[1] One of these is now quartered at Santa Cruz in Salsette.

Navy. The Royal Indian Marine, which chiefly performs trooping, station, and marine-surveying duties, possessed, in 1906, eighteen vessels manned by 97 superior officers, 71 engineers, and 1,439 men, while a large number of men are also employed in the Government dockyard.

The Port Trust, a small board of thirteen members representing commercial and other interests, controls the administration of the port. It had in 1903-4 a revenue of over 64 lakhs and a reserve fund of 27 lakhs. The Trust is responsible for carrying out improvements to the port, and has under contemplation the early addition of a third dock to the existing Victoria and Prince's Docks, which no longer meet the requirements of the local shipping. The foundation stone of this, to be called the Alexandra Dock, was laid by His Royal Highness the Prince of Wales in November, 1905.

A similar board of fourteen members, constituted under the Government of Lord Sandhurst in 1898 and styled the Bombay City Improvement Trust, has, as already mentioned, been entrusted with the regeneration of the city by the construction of new thoroughfares, the demolition of insanitary areas, the erection of sanitary quarters for the labouring classes, and the development of valuable sites for building. Its chief sources of revenue are an annual contribution from the municipality and the income from valuable property assigned to it by Government.

There are eight forms of land tenure existing in Bombay: namely, pension and tax, quit and ground rent, *foras*, *toka*, leasehold, land newly assessed, tenancies-at-will, and *inām*. 'Pension and tax,' from the Portuguese *pençao*, represents a fixed payment for fee-simple possession in compromise of a doubtful tenure, and dates from 1674. It is not subject to revision, and is redeemable on payment of thirty years' assessment. 'Quit and ground rent' assessment represents a tax imposed in 1718 to cover the cost of erecting fortifications, and varies from 3 to 5½ pies per square yard. *Foras* lands are held on payment of a *foras* or rent, a term which now refers only to the rent paid on lands given out at a low rate to persons willing to improve them. The tenure dates from 1740, when low-lying land was offered to the public for cultivation at a rent or *foras* of 2 pies per 60 square yards. *Toka* represents a share of the produce of the land, the original payment in kind being subsequently replaced by a money payment, which in 1879-80 was fixed for fifty years. 'Leasehold' land is held for terms varying from 21 to 999 years. 'Newly assessed lands' are rated under Act II of 1876, and the rates may be raised from time to time. The chief holders of *inām* land in the island are the Lowjī family (1783) and the heirs of Jamsetjī Bomanjī (1821). They pay no cess or rent of any kind. The revenue of Bombay is collected under a special Act

(Bombay Act II of 1876, modified by Act III of 1900), and amounted in 1903-4 to 3·7 lakhs. The excise revenue, including tree tax for the same year, was 11·7 lakhs.

Education.

Education was represented in 1880-1 by 146 schools and colleges with a total of 16,413 pupils. In 1900-1 the number of pupils had risen to 40,104. By the close of March, 1904, the city possessed 531 educational institutions of all kinds, as detailed in the subjoined table:—

Class of institutions.	Number.	Number of pupils.		
		Male.	Female.	Total.
Public.				
Arts colleges	3	1,086	29	1,115
Professional colleges	2	1,027	45	1,072
High schools	36	8,495	1,173	9,668
Middle English schools	49	2,687	943	3,630
Primary schools	196	12,785	6,193	18,978
Technical schools	10	1,283	40	1,323
Training schools	2	...	13	13
Total public	298	27,363	8,436	35,799
Private	233	7,912	2,760	10,672
Grand total	531	35,275	11,196	46,471

Of these institutions the Grant Medical College, which was established in 1845, prepares students for the degrees of L.M. & S. and M.D., and is the only college of its kind in the Presidency. The Elphinstone College was instituted in 1835 and is under the management of Government. The Bombay Law School, which teaches the full course in Law, is held in the Elphinstone College building. Among other important establishments are the Wilson College, St. Xavier's College, the Sir Jamsetjī Jījībhoy School of Art, the Victoria Jubilee Technical Institute, the Veterinary College, and a school for deaf-mutes. According to the Census of 1901 the number of those who are wholly illiterate amounts to 81 per cent. of the total population.

A vigorous English and vernacular press flourishes in Bombay. The *Times of India* and the *Bombay Gazette*, both of them daily journals, well edited and well informed, represent the Anglo-Indian community; and the *Advocate of India*, an evening paper, is also widely circulated. The *Bombay Samāchār* heads the list of vernacular newspapers, the most important of which are published in Gujarātī.

Medical.

For purposes of health administration the city is divided into 4 divisions of 32 sections, each division being placed in charge of a qualified medical officer subordinate to the Health Officer of the municipality. The municipal hospital for infectious diseases at Arthur Road is supplemented by numerous private

plague hospitals where members of the different communities can be treated. Altogether there are 12 hospitals, 17 dispensaries, and 19 private unaided institutions in Bombay, including a European General Hospital and 4 hospitals and 2 dispensaries for women. The expenditure on public medical institutions in 1904 was Rs. 5,25,000; and the annual attendance was 18,304 in-patients and 184,058 out-patients in the public institutions, and 1,355 in-patients and 191,865 out-patients in the 19 private institutions. Besides these, 3 railway institutions and 4 state special institutions annually treat 26,000 and 15,000 patients respectively. Under Act I of 1877 vaccination is compulsory in Bombay. There are 13 vaccinating stations with 8 vaccinators, and the number of persons vaccinated in 1904 was 19,927.

A leper asylum at Mātunga, established by the efforts of a former Municipal Commissioner, Mr. H. A. Acworth, provides accommodation for 370 inmates at a yearly cost of Rs. 33,000. The lepers are mainly drawn from the neighbouring coast districts, though some come from remote towns in Central Asia. They are employed in cultivating food-crops, assisted by a system of septic sewage tanks, and the asylum is popular among those who are afflicted.

A public lunatic asylum is maintained at Colāba Point for Europeans, Eurasians, and Pārsīs. It had in 1904 an average strength of 136 inmates, costing Rs. 307 per head per annum.

On August 21, 1896, a case of genuine bubonic plague was discovered in a house in Māndvi, a densely populated quarter of the native town on the east side of the island. The disease spread rapidly, and by December the mortality of the city had attained alarming dimensions. Measures were soon imperatively demanded for checking the epidemic. The control of these measures was entrusted to a special committee of officers appointed by Government and invested with very full powers. Attempts were then made to enforce the segregation of persons who had been in contact with a plague patient, the removal of the patients to some properly equipped hospital, and the disinfection of clothing and premises. These measures were essentially unpopular, and besides adding a stimulus to emigration on a large scale, the population fleeing as much from an unreasoning fear of all forms of control as from terror of the epidemic, eventually led to riots and bloodshed. The position was one of extreme difficulty. The sanitary service of the city was in the hands of *halālkhors* or scavengers. Had these joined the general exodus, the city would in a short time have been rendered uninhabitable. At the same time, the exodus of panic-stricken residents threatened to carry the plague over the whole of the Presidency and even beyond its limits. Attempts were made to enlist the co-operation of the leaders of native communities; gradually calmer feelings began to prevail, and with the subsidence of the epidemic in the hot season, Bombay tended

to resume its normal aspect. But in the interval the exodus had been enormous (it was roughly estimated at one-half of the population), the disease had been spread far and wide by heedless fugitives, business had been brought almost to a standstill, and the weekly mortality had risen to the appalling figure of 1,900. Annually since the fatal year of 1896 plague has become epidemic in the city. The highest rates of mortality reached in any week during the succeeding years were:—

1897-8	2,333
1898-9	2,412
1899-1900	2,772
1900-1	2,632
1901-2	1,902
1902-3	2,613
1903-4	1,676
1904-5	1,789

The usual season of maximum mortality is February or March. Gradually it came to be recognized that the continued existence of the plague, combined with the passive resistance of the people to measures which they failed to approve, rendered drastic expedients both undesirable and inoperative. After the abolition of the plague committee, the Government maintained for several years a specially organized plague administration in Bombay city, charged with the carrying out of moderate measures of disinfection and isolation, as far as possible with the concurrence of the victims. Assistance was given for the evacuation of seriously infected localities by the erection of temporary 'health camps' in various parts of the island. Finally, in 1901, the control of plague measures was handed over once more to the Health department of the municipality, with whom it now rests. The inoculation of healthy persons with Haffkine's preventive serum was carried out on a considerable scale, and with fair success, though the operation, partly owing to the shortness of the period for which it offers protection, and partly owing to prejudice, was never popular.

[*Census Reports for* 1872, 1881, and 1901; Sir J. M. Campbell, *Materials towards a Statistical Account of the Town and Island of Bombay* (Bombay, 1894); S. M. Edwardes, *The Rise of Bombay, a Retrospect* (Bombay, 1902); J. Gerson da Cunha, 'The Origin of Bombay,' extra number, *Journal of the Bombay Branch of the Royal Asiatic Society*, 1900; James Douglas, *Bombay and Western India*, 2 vols. (1893).]

Revenue Account of Bombay Municipality for 1903–4

(In thousands of rupees)

Receipts.			Expenditure.	
Taxation Proper.			General superintendence	2,34
General tax		29,03	Assessment and collection and revenue and refund audit departments	2,99
Wheel tax and tolls		3,98	Fire brigade	1,24
Town duties		11,69	Public gardens—maintenance and new works	67
Licences		1,06	Public works (engineer's) department	15,82
Receipts from Government for liquor licences		1,44	New works	84
Receipts from Government for tobacco duty		2,40	Public health department	19,79
Total		49,60	Police charges	5,00
Services rendered.			Education	1,13
Halālkhor tax		8,11	Hospitals	55
Water tax and other miscellaneous water-works revenue		15,71	Pensions, gratuities, and compassionate allowance	58
Total		23,82	Contribution to the City Improvement Trust	3,50
Returns from Property and Miscellaneous.			Total	54,45
Market receipts		4,53	Municipal debt:—	
Public gardens		11	Interest and charges on loans	22,43
Tramway rent		50	Reduction of debt and payment of sinking fund, including investment of interest accrued on sinking fund	6,76
Contribution from municipal servants towards pension, &c., fund		23	Total	29,19
Interest and profit on investments of surplus loan and other balances	1,36		Investments:—	
Interest on the sinking, insurance, worn-out mains renewal, school-building, and net premiums funds investments	2,23		Municipal buildings insurance fund	5
		3,59	Interest on the insurance, worn-out mains renewal, school-building and net premiums funds	28
Miscellaneous		2,34	Total	33
Total		11,30	Miscellaneous	23
			Investment of the premium on the last instalment of $3\frac{3}{4}$ lakhs of the $24\frac{3}{4}$ lakhs loan	11
Grand total		84,72	Grand total	84,31

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